

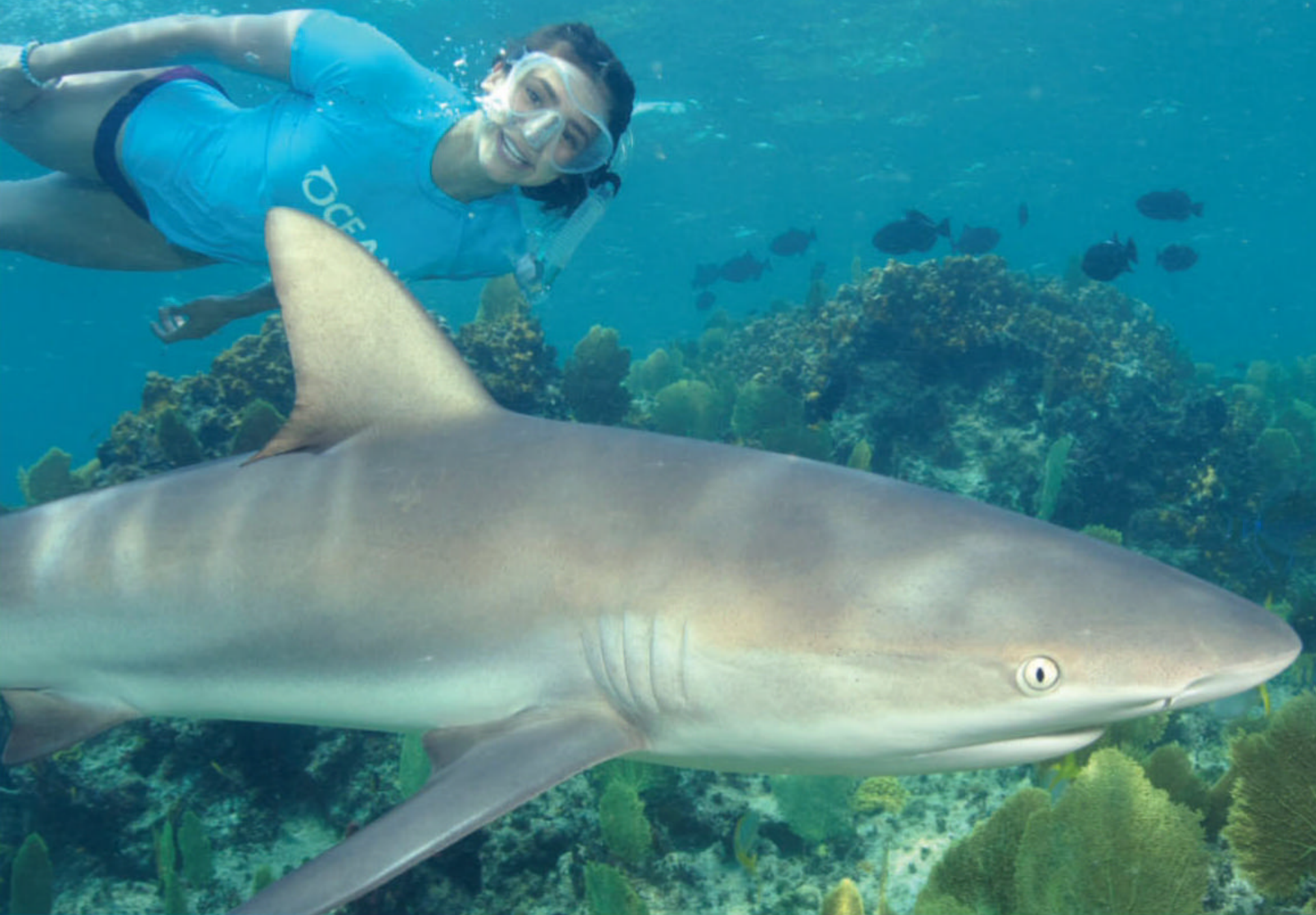
TIME

BEYOND
WALLSWHY THE FORCES
OF GLOBAL
MIGRATION
CAN'T BE
STOPPED**A SPECIAL REPORT**

Albertina, 27, and her daughter Yaquelin, 11, were reunited after being separated at the U.S.-Mexico border. They are among an estimated 3.1 million people seeking asylum worldwide



Oceana & Nina Dobrev Want to save sharks.



**"I used to be scared but then I learned the facts."
- Nina Dobrev, Actress and Ocean Advocate**

Sharks keep the oceans healthy and aren't really interested in us. It's actually our interest in their fins that's scary. Millions of sharks end up in the global fin trade every year.

Visit oceana.org/savesharks to see more from Nina and learn how you can help protect these vital ocean animals.

From the Editor

A world in motion

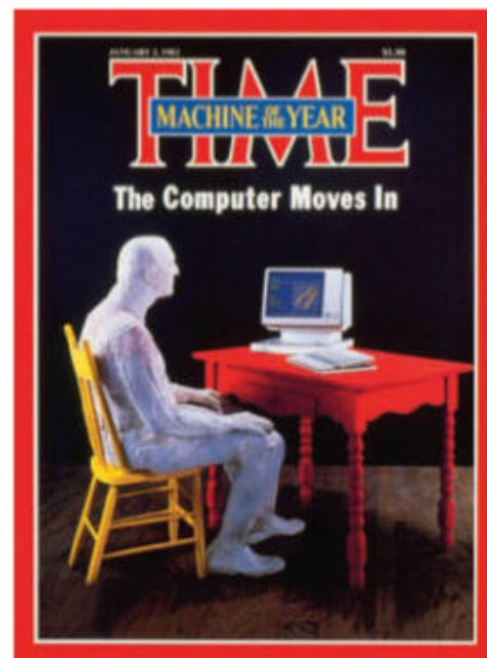
FOR THIS WEEK'S COVER PACKAGE ON THE MIGRATION boom, TIME reporters traversed the globe interviewing refugees and immigrants. As these international migrants flee war, poverty, oppression and natural disasters in search of a better life, they are also upending politics and reshaping economies in the countries where they are landing.

To help tell the human stories that can get lost in this larger global shift, we turned to photographer Davide Monteleone, who shot his subjects in front of a simple white vinyl backdrop. "Eliminating the desperate conditions in which migrants are generally depicted allows the viewer to reflect on the story of the individual rather than the stereotypical ideas surrounding the migratory experience," Davide says of his approach.

We also asked many of the migrants we met to illustrate their journey. The drawings, captured in a TIME video that you can see at [TIME.com/migrants](https://www.time.com/migrants), bring each of their individual stories to life. As David Maldonado, who arrived at the U.S. border in late 2018 after fleeing gang violence in Honduras, says of his decision to venture into the unknown, "I have had to leave my family, my partner, my father, who has made sacrifices. But everything in life needs sacrifice, and I hope to God he allows me to get to the other side."

LIKE THE MASSIVE MOVEMENT of people across borders, new technologies are reshaping our world in powerful ways. This issue includes an in-depth exploration—created in partnership with the World Economic Forum—on the wonder, fear, upheaval and opportunity that these technologies have sparked.

As a relative youngster among legacy publications like the *Wall Street Journal* (1889) and the *New York Times* (1851), 96-year-old TIME wasn't around to cover the first or second industrial revolution, in which steam and then electricity transformed the world's economies. But we were early to the third, the one led by microchips and software, and stayed on it for half a century, perhaps most famously in a piece (written, ironically, on a 15-year-old Royal 440 typewriter) that named the



BACK IN TIME

Clockwise from top left: The evolution of the computer, as seen on the covers of TIME in 1950, 1983, 1965 and 1960

computer "Machine of the Year" for 1982 and heralded the dawn of a new era. About that era, we nailed some predictions (a "TV set hung like a picture," solar heating, autonomous cars)—and called others wrong (like clothes "whisked spotless ultrasonically"). But the sharpest eye of the period belonged to Boris Artzybasheff, one of the most prolific cover artists in TIME's history, who as early as 1950 saw right through the third industrial revolution and into the fourth.

Our special section on the fourth industrial revolution dives into questions likely to define our era—and the next: Will unprecedented global connectivity, automation and artificial intelligence lead to a future of unemployment, misinformation and class warfare—or, harnessed differently, to more empowerment, creativity and sustainability?

Edward Felsenthal,
EDITOR-IN-CHIEF
@EFELSENTHAL



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'I'm a criminal lawyer. I am not an ethicist.'

RUDY GIULIANI, legal adviser to President Trump, to the *New Yorker*, on whether it would be "problematic" if Trump had been involved in discussions of a Moscow real estate project during his campaign without the knowledge of the American people

'It's time for leaders on both sides to put politics aside, come together, and end this shutdown.'

GEORGE W. BUSH, 43rd U.S. President, in a Jan. 18 Instagram post showing him delivering pizza to Secret Service personnel, who have been working without pay

10%

Percentage of Transportation Security Administration screeners absent from work on Jan. 20, an agency record, on Day 30 of the partial government shutdown

'THIRTY YEARS IS A LONG TIME, AIN'T IT?'

SPIKE LEE, director, reacting to his first Academy Award nomination for directing, for *BlackKkKlansman*

'You get a lot of support with the baby as a mother, particularly in the early days, but after the age of 1 it falls away.'

KATE MIDDLETON, Duchess of Cambridge, on the importance of a new U.K. hotline offering advice for parents and caregivers

'I've never seen jumps in some of the key indicators like this.'

ANTHONY LEISEROWITZ, director of the Yale Program on Climate Change Communication, after a survey showed a significant spike in the percentage of Americans worried about climate change



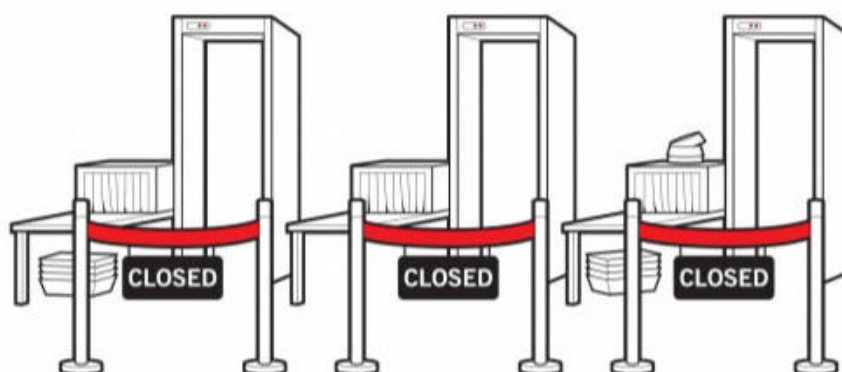
\$25,000

Money raised last year to fund the search for a mate for a rare Bolivian frog nicknamed Romeo; a Juliet was found, and scientists hoping to help save the species have now planned a "date" for them on Valentine's Day

Ariana Grande
Several rappers say her new single "7 Rings" is overly similar to their work



Grande to go
Starbucks, with the help of Uber Eats, plans to expand delivery service for mobile users



The Brief

**PIÈCE DE
RÉSISTANCE**
Rifts in the
Women's March
movement were a
backdrop to 2019
events, like this
one in Phoenix



INSIDE

SUDAN'S GOVERNMENT IS
FAMILIAR WITH UNREST, BUT
THIS TIME COULD BE DIFFERENT

WHAT THE U.S. AND NORTH
KOREA COULD GET OUT OF
ANOTHER TRUMP-KIM SUMMIT

REMEMBERING POET MARY
OLIVER FOR THE "INFECTIOUS
WONDER" OF HER WORDS

PHOTOGRAPH BY RICK D'ELIA

NATION

What comes after the Women's March

By Abby Vesoulis

THOSE WHO DONNED THEIR PINK HATS AND picked up their placards on Jan. 19 betrayed little fatigue as they trotted down Pennsylvania Avenue during this year's Women's March, raising middle fingers at the Trump International Hotel in passing. But, just two years in, the movement behind the march is showing its age.

In 2017, nearly half a million people flooded the streets of Washington in a mass challenge to President Trump, with millions joining rallies elsewhere in what is thought to have been one of the largest single-day protests in U.S. history. This year, only about 100,000 people showed up in D.C. The Democratic National Committee and major progressive groups steered clear of the march, and social media percolated with statements from women who wanted no part of it. Some who did come out brought reservations about organizers as well as grievances against Trump.

One big reason for the decline in attendance is Women's March Inc. co-president Tamika Mallory. She has praised Louis Farrakhan, the Nation of Islam leader who has called Jewish people "satanic"; Mallory, citing his work for African Americans, has stuck by her statement. Women's March board member Linda Sarsour, who is Palestinian American and has also faced criticism for her personal beliefs about Israel, told NPR the Women's March—which denies charges that it's not inclusive—should be evaluated independent of Farrakhan. "People are asking us to take responsibility for commentary made by someone else, and in particular a man," she said, "which is actually quite antithetical to feminism."

But Teresa Shook, the retired lawyer who on election night 2016 first launched the call to march, skipped this year's events and has called on the group's leaders to resign. On her Facebook page, in a post that amassed thousands of Likes, she accused the group's leaders of having "steered the Movement away from its true course" by allowing "hateful" rhetoric to become part of the equation.

Dozens of women at the D.C. event told TIME that they chose to attend the demonstration despite, not because of, its organizers.

"There are thousands of women who are marching for the right reasons and who don't have affiliations with people who are racist," said Mary Lou Frey-Nicholson, a nanny who had come more than 400 miles from New Bedford, Mass., to be there. "I'm marching with *them*."

SCHISMS IN POLITICAL MOVEMENTS are nothing new. They're typical of broad, fast-growing social-justice efforts like the Women's March, says Jo Reger, a sociologist at Oakland University who studies social movements. "If you think about the history of the women's movement in this country, it's full of divisions," she says, pointing to examples going all the way back to the fight for suffrage.

Divisions, in that way, can be a sign of maturity. They don't have to kill a movement, though they can slow it down. And sometimes, Reger says, splinters are seeds for change. That's already happened here, as some disenfranchised marchers have founded their own groups.

But that's not all that's changed since 2017. In the wake of the election, the streets were one of the only spaces available for dissent. Since then, those who oppose Trump have found additional outlets, such as midterm elections that sent a record number of women to Congress—including several who decided to run in the heady aftermath of the first march. They may also take heart in the President's travails, like the special counsel's investigation, and chronically low approval ratings.

"While the portrayal of the Women's March movement as a monolith led by a few figureheads is diminishing, the movement at large has actually been strengthening as activists gain experience," says Vanessa Wruble, who co-founded D.C.'s 2017 march and went on to lead a competing faction called March On.

And the movement isn't just about individual politicians anymore—or even marching. The protesters increasingly focus on specific policy issues, like affordable health care and ratification of the Equal Rights Amendment. "We can use the platform to strengthen accountability for our officials, create stronger bonds with federal agencies and translate our wins at the polls into legislative achievements," says Winnie Wong, a steering-committee member of Women's March Inc.

Whether a fracturing of interests signifies resilience or the beginning of the end for the Women's March is hard to tell. But it's clear that many are looking past those at the top of the organization to its original source of strength. "It's very human to say there are leaders and those leaders are going to save us," Wruble says, "when, in fact, it has always been the people themselves." □



Freedom Plaza in Washington, D.C., is prepped for the Jan. 19 Women's March



ONCE IN A... On the night of Jan. 20, stargazers witnessed a lunar eclipse coinciding with a supermoon—a full moon that appears when the moon’s orbit brings it closer to earth, making it seem larger. As the moon passed into the earth’s shadow, it glowed red, leading some to call it the “super blood wolf moon.” (January’s full moon is sometimes nicknamed the wolf moon.) Visible across the Americas—including from Sea Ranch, Calif., where this photo was taken—it was the last total lunar eclipse until 2021.

THE BULLETIN

An uprising in Sudan threatens to dismantle three decades of authoritarian rule

FOR NEARLY 30 YEARS, PRESIDENT OMAR Hassan al-Bashir has ruled Sudan with an authoritarian zeal that ranks him among the world’s most notorious dictators, accused of severe human-rights abuses, corruption and economic incompetence. Sanctions and condemnation have had little effect, but a popular uprising, now in its second month, is sending cracks through the once unassailable edifice of his regime.

LET THEM EAT BREAD What began on Dec. 19 as a riot in the city of Atbara over the price of bread soon morphed into a nationwide anti-al-Bashir movement. Throngs of young protesters—Sudan’s median age is 19—have filled the streets, calling for “freedom, peace and justice.” Authorities have arrested more than a thousand and killed 40, according to Amnesty International. But the near daily demonstrations continue. “People are hungry, and they see the looting of the country’s resources by the ruling clique,” said Sudanese-British billionaire Mohammed Ibrahim. “When they are pushed against the wall, they just have nothing to lose.”

SOLIDARITY AT LAST Al-Bashir’s government is no stranger to unrest, but there are signs that the latest uprising has him rattled. The 75-year-old calls the protesters “traitors” and blames the violence on rebels from Sudan’s Darfur region—a once effective tactic that seems to have lost its teeth. His opponents say diverse ethnic groups are finally united against their President after years of his exploiting divisions. Protesters now chant, “We are all Darfur,” referring to the genocide that in 2009 made al-Bashir the first serving head of state ever to be indicted by the International Criminal Court.

TURNING THE TIDE The harsh crackdown has drawn the professional classes to the cause; doctors and lawyers are coordinating many of the rallies. Al-Bashir has insisted he will not step down and says only that he will respect the will of the people in elections slated for 2020. But the Sudanese have lost faith in the country’s rigged election system. Now in the streets and sensing weakness, they may not stop until they get the response they are waiting for. —ARYN BAKER

NEWS TICKER

Protests met with violence in Zimbabwe

Zimbabwe’s President Emmerson Mnangagwa called on Jan. 22 for a probe into alleged violence by security forces, after at least 12 people were killed and hundreds injured in the wake of **protests that broke out after a fuel-price increase** was announced.

Supreme Court to hear gun case

The U.S. Supreme Court agreed on Jan. 22 **to hear its first Second Amendment case in nine years**—a move that may signal a willingness by the now majority-conservative court to weigh in on gun-control issues. The case, a challenge to a New York City rule restricting where some licensed gun owners can carry their weapons, will be heard next term.

Gene-editing scientist reprimanded

The Chinese scientist who claims he created the **world’s first genetically edited babies** acted illegally and will be punished, state media reported on Jan. 21. He has also been fired from his university job. In November, He Jiankui said he had altered the genes of twin girls’ embryos to make them resistant to HIV.

NEWS TICKER

Taliban resumes talks after killings

Dozens of people were killed in a Taliban attack at an Afghan intelligence base on Jan. 21—the same day as the militant group, which holds large swaths of Afghanistan, **said it restarted peace talks with U.S. officials.**

Google fined under new E.U. data law

France's data-protection commission hit Google with a nearly \$57 million fine on Jan. 21 for **violation of the E.U.'s General Data Protection Regulation rules**, introduced last year. The regulatory group accused the tech giant of "lack of transparency, inadequate information and lack of valid consent" regarding the personalization of ads.

Questions remain on BuzzFeed Trump report

Special counsel Robert Mueller's office **denied unnamed aspects of a BuzzFeed News story** alleging that President Trump instructed his now former lawyer Michael Cohen to lie to Congress. BuzzFeed stood by the Jan. 17 story, which had sparked talk of impeachment among some members of Congress.

GOOD QUESTION

Can Trump revive his deal with North Korea?

IF THE FIRST MEETING WAS ABOUT MAKING friends, the second means getting down to business. The White House said Jan. 18 that President Donald Trump and North Korean leader Kim Jong Un will sit down before the end of February in an attempt to inject life into a denuclearization process that has stalled since their June summit in Singapore.

If the second meeting is going to make a difference, Trump will need Kim to offer up something real. Over the past year, Kim has returned three U.S. hostages and the remains of troops killed during the Korean War, and destroyed a redundant nuclear testing site. But his nuclear and missiles programs have continued unabated.

At the very least, Washington needs a full inventory of North Korea's ballistic missiles and nuclear, biological and chemical weapons arsenals and facilities. Just three days after the summit was announced, a Washington, D.C., think tank released a report revealing a secret North Korean missile base, the existence of which had not been declared by the country's authorities. The next step would be returning International Atomic Energy Agency inspectors to those sites and agreeing on a firm dismantlement schedule. Any deal, argues Sung-Yoon Lee, professor of Korean studies at Tufts University, must be implemented on the basis of "verification, instead of illusory concessions."

In exchange, Kim would get a phased rollback of U.N. sanctions. But sanctions relief is a double-edged sword for the dictator. Boosting the livelihoods of his people would entail the risk of opening up North Korean society. Plus, sanctions enforcement by China—across whose border nearly all North Korean trade passes—has already crumbled amid Trump's trade war and Kim's warming relations with President Xi Jinping.

Kim's priority is a striking a deal that formally ends the Korean War, which concluded with a 1953 armistice. That would undercut the justification for keeping U.S. forces in South Korea and Japan, which host 28,500 and 54,000 American troops, respectively.

Sean King, a risk analyst and former U.S. diplomat, suspects Kim will offer to dismantle his ICBMs, which can theoretically hit the U.S., in return for Trump's removing regional strategic assets and troops. Trump has already said he wants to withdraw troops from South Korea, and in June agreed to suspend joint South Korea–U.S. military drills, which was a red line for the U.S. since 1996. "Why wouldn't [Trump] jump at such an opportunity?" King says, noting that he could then simply redefine successful denuclearization as having secured the U.S. mainland.

That version of security could leave South Korea exposed and isolated. But Trump is facing trouble at home, including the government shutdown and no signs of a breakthrough in trade negotiations with China. In this situation, the self-styled master deal-maker may be keen to secure a deal, any deal, whatever the cost. —CHARLIE CAMPBELL

HISTORY

Not-so-ancient artifacts

Scottish archaeologists ended research into a stone circle thought to be centuries old, after it emerged that a farmer built it in the 1990s. Here, more artificial antiquities. —George Steer

COUNTERFEIT CROWN

In 1896, the Louvre said it had bought the golden tiara of an ancient Scythian king. Several years later, after experts raised questions, the crown was revealed to be a fake made by an Odessa goldsmith.



FAKE FOSSILS

Skull and jawbone fragments said to be found in a gravel pit in Piltdown, England, were unveiled in 1912 as the "missing link" in human evolution. Four decades later, new technology helped expose the fossils as forgeries.

UNDER WRAPS

In 1969, the Old Capitol Museum in Mississippi removed an Egyptian mummy that had been on display since the 1920s, after a medical student X-rayed it and realized it was composed of papier-mâché and nails.

Milestones

DIED

➤ **Russell Baker**, the Pulitzer Prize-winning writer who wrote the “Observer” column for the New York Times for decades, on Jan. 21 at 93.

➤ **Masazo Nonaka**, who held the title of the world’s oldest man, at 113 years and 179 days, on Jan. 20.

ANNOUNCED

That **California Senator Kamala Harris** is running for President, on Jan. 21. Her campaign raised \$1.5 million in its first 24 hours, matching Vermont Senator Bernie Sanders’ record from his 2016 bid.

SENTENCED

Egyptian TV presenter Mohamed al-Ghiety, to one year of hard labor by the Egyptian government, for interviewing an anonymous gay man last year.

OPENED

A record **33,341 murder probes** by Mexican investigators in 2018, up from the previous record of 25,036 in 2017.

NOMINATED

The Netflix movie **Roma**, for 10 Oscars, including Best Picture—Netflix’s first nomination in the top category. **Black Panther** became the first superhero movie to be nominated for Best Picture.

ELECTED

New York Yankees closer **Mariano Rivera**, to the Baseball Hall of Fame on Jan. 22. He was the first player ever chosen unanimously.



In addition to her Pulitzer Prize, Oliver, shown here in 2013, received the National Book Award for Poetry in 1992

DIED

Mary Oliver *Poet of a captivating world*

IF YOU KNOW ONLY ONE LINE OF MARY OLIVER’S POETRY, IT IS likely a question she posed, one that sums up the infectious wonder that ran through her verse like veins through a leaf. “Tell me,” the Pulitzer Prize-winning poet wrote in “The Summer Day,” “what is it you plan to do/ with your one wild and precious life?”

Oliver, who had been treated for lymphoma, died at her home in Hobe Sound, Fla., on Jan. 17. She was 83 and a rarity even among poets. She was not merely prolific: the Ohio native published more than 20 volumes of verse, including *American Primitive*, the collection that won the Pulitzer in 1984. Her work also sold well. Writers borrowed her lines as epigraphs and readers held them close—and taped them up and tweeted them out and even tattooed them—because Oliver gave fresh spirit to old ideas in purposefully plain speech.

She found perspective in the march of seasons. She envied the secret lives of animals. She reminded her readers that life is a blessing, that mischief can be healing, that uncertainty isn’t a reason to disbelieve. She also left us with helpful instructions, some written as she grappled with growing older and wondering what comes next. “Keep some room in your heart,” Oliver wrote in 2009, “for the unimaginable.” —KATY STEINMETZ

ORDERED

Trans troop ban enforced *Legal battle*

FEW BARRIERS REMAIN that keep whole classes of Americans from serving in the military. On Jan. 22, in a 5-4 decision, the Supreme Court ruled to maintain one of the last such hurdles, allowing President Donald Trump’s policy on transgender troops to go into effect while a legal fight unfolds.

The unsigned order isn’t a final decision—the Justices denied the Administration’s request for one—but it cleared a path for the Defense Department to enforce the rule, which bans most trans Americans from serving in the military and requires troops to serve “in their biological sex” or else be “presumptively disqualified.” That’s a win for the White House, which argued that military readiness and effectiveness were in jeopardy. (A 2016 RAND report found allowing trans troops would likely have “minimal impact on readiness.”)

It could take years for one of the ongoing cases about the policy to make its way to the Supreme Court, but advocates on both sides see this order as an omen. When a case does eventually come up, it suggests, the Justices are likely to uphold the policy again. —W.J. HENNIGAN



TV host **Michael Strahan** keeps tabs on the Super Bowl while expanding his horizons

By Sean Gregory

AS A BRUISING LINEMAN FOR THE NEW YORK Giants, Michael Strahan used to do battle with 320-lb. behemoths every Sunday. Now, on a recent Friday morning at a New York City television studio, he's dancing with an elderly woman to "Cake by the Ocean." In his current gig as co-host of the highly caffeinated third hour of *Good Morning America*, known as *GMA Day*, Strahan does his fair share of pumping up the crowd. *GMA Day* is a bit like a designer-steroid version of *Live With Kelly and Ryan*—which Strahan co-hosted with Kelly Ripa in its *Live With Kelly and Michael* iteration, before a tabloid-friendly breakup ended their run in 2016.

An expert offers tips for decluttering your cell phone, and the studio audience emits *woooooos*, as if someone had just won a new car. (In fairness, they're good tips. Unsubscribe from those lists.) And there's dancing. So. Much. Dancing. Strahan enters the studio, getting down to Missy Elliott's "Get Ur Freak On." After a sweet segment with a 10-year-old boy who donated \$100 of his own money to help cover the unpaid lunch bills of his classmates, Strahan writhes on the floor, doing the worm.

Reminder: it's 10:30 a.m. on a Friday. Backstage after the taping, even Strahan questions how he summons the excess pep. "I'm going, What's wrong with you?" says Strahan. "It's weird."

The performances are paying off. Strahan, the affable former football star with an instantly recognizable gap-toothed smile, now counts as one of the hottest commodities on television, having launched an unconventional post-NFL career that's the envy of many of his peers. Sure, Strahan joins a merry band of ex-jocks, like the guffawing Terry Bradshaw and the studious Howie Long, talking football on Fox's Sunday pregame show. But that's just part of his broadcast portfolio: in addition to his role on *GMA Day*, he's a co-anchor on *Good Morning America* and executive producer and star of ABC's reboot of the \$100,000 *Pyramid* game show. None of that fits the typical former-athlete game plan. During a *GMA* interview in early January, Strahan pressed comedian Kevin Hart about past homophobic tweets that ultimately cost Hart his slot as Oscars host. Hart came across as defiant. Strahan, a friend of Hart's, refused to let him off easy.

None of which is to say Strahan isn't turning his attention toward Feb. 3 and the Super Bowl LIII

STRAHAN QUICK FACTS

Busy fellow

Besides his on-air duties on five different TV programs, Strahan launched a clothing line at JCPenney and co-owns a talent and production company.

Sack king

In 2002, Strahan set the NFL single-season sack record in controversial fashion: Brett Favre took a tumble to hand it to him. "If someone doesn't like it," he says, "just break it."

Trophy case

He won two Emmy Awards for his work on *Live With Kelly and Michael*.

matchup between the New England Patriots and the Los Angeles Rams. Strahan knows a bit about dethroning the Pats' Tom Brady. Back in 2008, his Giants upset the Patriots in Super Bowl XLII, costing New England a perfect 19-0 season. He encourages the Rams to enter this year's Super Bowl with the same defiance he saw in his teammates. "We know they've beaten everybody under the sun," says Strahan, who in conversation circles his hands and touches his chest when animated. "We know that they can prepare for anybody. Well, now it's time to start our history. This is our time. F their time."

STRAHAN'S TIME BEGAN in West Germany, where he grew up on an Army base. His dad was a major. Strahan was no can't-miss football prospect. As a chunky 13-year-old, he cried when he realized why other kids called him Bob. It stood for Booty on Back. Or, worse, Big Ol' Butt. "I thought Bob was a cool nickname," he says. "I was devastated."

The taunting, however, drove him to exercise. His father put him on a weight-lifting regimen, and they'd jog in the woods together. Convinced that his son could earn a football scholarship, Strahan's father sent him to Houston for his senior year of high school. After he starred at Texas Southern University, the Giants drafted Strahan in the second round of the 1993 draft. Nearly a decade later, in 2002, he set the NFL's single-season sack record. He entered the Pro Football Hall of Fame in 2014. Strahan sees parallels between his football and TV careers. Neither was carefully planned; he learned both on the fly. "Here's a kid in Germany, go play football," says Strahan. "'O.K., Dad.' Back in the day, do *Live*. I've never done it, figured it out. Do *GMA*. It scared me to death. Figure it out."

His partnership with Ripa blew up in 2016, when ABC asked Strahan to join *GMA* full time. Ripa felt blindsided by the offer and did not report to work for nearly a week; she came back championing respect and communication in the workplace. He departed the show months earlier than planned. "I learned through all that went down with that, you can't convince people to like you," says Strahan. He credits Ripa for teaching him how to reach a new TV audience, though they're no longer in touch. "I haven't spoken to her in a long time," he says.

Live led him to *GMA*, where he has thrived. So ABC execs decided to hand him and co-host Sara Haines the third hour of the morning show. (Unlike the extra hours of the *Today* show, which air after the main morning block, *GMA Day* runs in the early afternoon.) Strahan figured out how to grab attention for his nascent program. After President Trump fed the national champion Clemson University football team fast food during their Jan. 14 White House visit, Strahan announced on *GMA Day* that he'd pay for a lobster dinner for the squad. The show's producers



have reached out to Clemson; there's still a chance the meal will happen. "I would have been excited to be at the White House," says Strahan. "Then I would have walked out of there, like, 'That was the meal? That wasn't what I expected.' If you're going to go there, go all out."

A COUPLE OF DAYS before the NFC championship game between the Los Angeles Rams and New Orleans Saints on Jan. 20, I asked Strahan what he would change about football if he were named NFL commissioner. First, he recommended an overhaul of instant replay. "You should be able to review some of these calls that you're not able to review," Strahan says. The response was eerily prescient, as an official missed an obvious pass-interference call that almost certainly cost the Saints a Super Bowl berth. During the off-season, the NFL will discuss allowing refs to correct such judgment calls. "If you're trying not to let human error be part of the game, use it for things like we saw yesterday," Strahan says in a follow-up call after the game. "It's a bad feeling. It kind of puts a damper on the Rams."

'He's never been mobile. But he knows how to step. Just like a dancer.'

MICHAEL STRAHAN, on Tom Brady, who's reached a ninth Super Bowl

That's a shame, because Pats-Rams is an enticing matchup on the merits. Brady, 41, is the oldest quarterback to start a Super Bowl. Rams quarterback Jared Goff, 24, is the youngest to win an NFC championship game. L.A. certainly has the defensive skill to thwart the Pats. Rams lineman Aaron Donald threatened Strahan's sack record this season. Ndamukong Suh, another member of L.A.'s defensive front, sacked Saints QB Drew Brees in the championship game. "You've got to get to Brady," Strahan says. "It's not easy. He's never been mobile. But he knows how to step. Just like a dancer."

Strahan's key to Super Bowl prep was realizing that the field's still 100 yards long. The Patriots, who have made the big game three years running, own the experience. The Rams can't feel overwhelmed. "When you're playing for something bigger than yourself, with a group of guys you love, that will get you going when you don't have anything left in the tank," says Strahan. "It's not like in the Super Bowl they change the rules. It's not that complicated. Realize it's just freaking football." □

Boxed in

Paul Whelan, the former U.S. Marine accused by Russia of being a spy, speaks to his lawyers from the defendant's cage during a pretrial hearing in Moscow on Jan. 22. His court-appointed lawyer has acknowledged that Whelan was carrying "information constituting state secrets" on a flash drive when arrested in December, but said Whelan hadn't opened the drive, which he thought held travel photos. Whelan, who maintains he is innocent of an unspecified "act of espionage," faces up to 20 years in prison.

Photograph by Mladen Antonov—AFP/Getty Images

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The View

NATION

A GOVERNMENT BY TOO FEW

By Molly Jahn, Gregory Treverton and David A. Bray

The longest government shutdown in U.S. history has directed America's attention to the plight of its federal employees. But there is something worse and more fundamental happening. Over decades, this workforce has become overburdened, putting the country at greater risk than most of its citizens realize. ▶

INSIDE

THE ARAB SPRING'S
GREATEST SUCCESS SHOWS
SIGNS OF WEAKNESS

AN NBA PLAYER
DISCUSSES HIS FEAR
OF EXTRADITION

WHY DOCTORS DON'T
LISTEN TO BLACK WOMEN
IN PAIN

TheView Opener

After analyzing two decades of federal personnel data and conducting interviews and focus groups with employees before the shutdown, we concluded that the U.S. government may not be able to respond capably to a greater national crisis—or mount an adequate response if multiple domestic or foreign emergencies occurred at the same time.

These findings, which we detail in a study published by the nonpartisan Senior Executives Association, should be cause for serious concern to all Americans. Regardless of whether you think the federal government should be smaller or larger, we all want it to be effective during emergencies. But it's not difficult to foresee a situation in which massive wildfires in California are followed by floods with landslides at the same time as a devastating hurricane hits the Gulf Coast. Similarly, it is not difficult to imagine U.S. diplomats facing nuclear crises in North Korea and Iran simultaneously. In 2019, the current federal workforce is ill-equipped to address either scenario.

THE DETERIORATION

of the federal workforce didn't happen overnight. In nearly 60 years, the U.S. population increased 81%—far more citizens for civil servants to serve, assist and protect. Yet the federal workforce has not kept pace: from 1.8 million civilian employees in 1960 to 2.1 million in 2017.

As the ratio of staff to citizen has shrunk, budgets and programs have expanded. Consider Congress. Recent workforce studies indicate that each appropriations staffer in the House is now responsible for 52% more federal dollars than he or she was just 16 years ago; the workload of Senate appropriations staffers has increased 30% during the same period. The failure to adequately staff the federal government is creating exactly the kind of waste that politicians hoped to avoid. Since Congress is now unable to properly oversee the more than \$4 trillion it appropriates each fiscal year, its expenditures have become less efficient and effective.

This shift didn't occur under a single political party's rule. The promise to restrain what some perceive as overreach by government has long been evident in Republican

Administrations, but it's also consistent with Clinton-era efforts. The problem has worsened in the Trump Administration, with unprecedented rates of staff departures at senior ranks. More than twice as many Cabinet-level employees quit in 2017 as did in 2009, the first year of President Obama's tenure. This has been compounded by widespread vacancies in senior Executive Branch positions.

Federal employees described to us an environment where they are penalized for action, hampered by outdated processes and not rewarded for innovation. Mistrust of senior career civil servants by incoming political appointees has become endemic. Career employees who have served their country under one Administration are often marginalized by the next.

All of this is happening as public servants face new challenges. Cyberattacks can dis-

able or abuse substantial parts of the government—from voting machines during elections to the electrical grid to even National Security Agency tools that are discovered and used for widespread hacking, as we saw with the Wanna-Cry ransomware attack in 2017. This may be coupled with targeted misinformation campaigns, possibly by foreign governments, that discredit these and similar public processes

and seed conflict.

Reopening the government in full will not solve these problems. In fact, our federal workforce faces weeks of backlog, often to be handled with significantly fewer staff members compared with 20 years ago, amid agencies stymied by byzantine hiring processes, low morale and high rates of departure.

It is past time for the adults in Congress—in both parties—to address these federal workforce issues for the sake of our Republic. An effective, stable government is essential to maintain the economy, safeguard public resources and keep citizens safe. We hope that Americans in the 21st century don't have to learn that lesson the hard way.

Jahn served as Deputy and Acting Under Secretary of Agriculture; Treverton served as chair of the U.S. National Intelligence Council; and Bray served as a Senior National Intelligence Service executive



Federal workers wait in line in Washington on Jan. 16

SHORT READS

► Highlights from stories on time.com/ideas

Strength in numbers

After the New York Times reported that President Trump was considering pulling the U.S. out of NATO, James Stavridis, who served as Supreme Allied Commander at the alliance, referenced Winston Churchill:

"The only thing worse than fighting with allies is fighting without them."

What to know when you don't know

After the debate over what did and didn't happen at the confrontation between high school students and a Native American elder on the National Mall on Jan. 19, TIME's Jeffrey Kluger advises: **"If there are few QEDs and mostly WTFs, it's just noise. Move on."**

Re-electing a Republican

Having surveyed thousands of Americans, the pollster Lord Michael Ashcroft argues the right's best hope for 2020 is the possibility "that **the spiral of indignation that has fueled [the left's] activism** might drive Democrats to line up behind a candidate, platform and message perfectly calibrated to drive uncommitted voters back into the arms of Donald Trump."

THE RISK REPORT

Tunisia's fledgling democracy shows signs of wear and tear

By Ian Bremmer



TUNISIA WILL FOREVER be remembered as the birthplace of the Arab Spring in 2011. That has been both a blessing and a curse for the country.

The upside is that democracy and reform have become focal points of national pride in a region badly in need of both—especially after the architects of the transition won the Nobel Peace Prize in 2015. The downside is that Tunisia's halting progress continues to disappoint those who hope others will follow its path. Egypt's retreat into dictatorship, Libya's fragmentation and Syria's catastrophic war make Tunisia that much more important for those who insist that the awakening continues.

Eight years after the uprising, many Tunisians are angry at how their newly democratic state is faring. The unemployment rate for graduates is about 30%. For those who have jobs, wages remain stagnant, and GDP per capita is down since 2014. Tens of thousands have fled the country in search of better prospects. Little wonder then that demonstrations have become commonplace in recent years. According to the Tunisian Forum for Economic and Social Rights, their number has surged from 5,001 in 2015 to more than 11,000 last year.

The most recent, at this writing, came on Jan. 17, when Tunisia's largest labor union staged a nationwide strike to demand better pay for state employees. Timed to mark the democratic uprising's anniversary, it was joined by hundreds of thousands of workers and brought much of the country's rail, road and air traffic to a halt. Work in schools, hospitals and state-run media slowed. This follows the self-immolation of a journalist in December, an act of desperate protest echoing the public suicide of vegetable vendor

Mohammed Bouazizi in 2011, the spark that ignited the revolution.

The unrest puts Prime Minister Youssef Chahed in a tight spot. His country badly needs foreign investment, and the International Monetary Fund (IMF) remains the most promising source of needed cash. The catch is that the IMF wants Chahed to prove he'll keep state spending within recommended limits.

But this is an election year in Tunisia, and the Prime Minister knows he can't afford to ignore demands from frustrated civil servants for better pay, or risk taking

tough decisions when the results won't be seen until after votes are cast. At the same time, street unrest will discourage investment. And protesters demanding that the government tackle rising corruption, reduce income inequality and create jobs won't be easy to placate.

This isn't yet a crisis. IMF officials understand Chahed's predicament and want him to succeed, and the fund will probably follow its criticism of his government with more

financial support. After another few weeks of fist shaking, the unions will likely end up coming to a compromise with the government. Tunisia and its Prime Minister will all but certainly muddle through. That's hardly a ringing endorsement for democracy, though—particularly in a part of the world where leaders aren't eager to share power and few citizens have ever experienced democracy's benefits.

The Arab Spring succeeded in producing at least one country that's building authentically democratic institutions and holding free and fair elections. But with each passing year, the glow of that achievement dims and demands for prosperity and fairness grow more urgent. If they are not met, then one day Tunisians might decide the revolution—and all it ushered in—was more curse than blessing. □

Eight years after the Arab Spring uprising, many Tunisians are angry at how their newly democratic state is faring

QUICK TALK

Enes Kanter

The New York Knicks center reacts to the Turkish government's seeking a warrant for his arrest after he repeatedly denounced its President.

If you get extradited, what do you think will happen to you? I don't know if they can kill me, because there will be so much pressure. But there have been lots of reports out there that they torture people in jails.

What kind of torture would you expect? I have no idea. But I know that after that torture, I will not be able to play basketball again.

What's your main criticism of President Recep Tayyip Erdogan? Erdogan violates human rights. About 17,000 women and around 700 babies have been kept in jail. Turkey is the No. 1 country in the world for putting journalists into jail. I love my country. Turkey could be the bridge between modern Islam and the West. But now that's impossible.

Any message for your family in Turkey? If I could say one thing, I would tell them, "I love you." And I would say, "Mom, I miss your food."
—Sean Gregory



Why my medical crisis wasn't taken seriously

By Tressie McMillan Cottom

THE FIRST DREAM FOR MY IMAGINED FUTURE SELF THAT I can recall starts with a sound. I was maybe 5 years old, and I wanted to click-clack. The click-clack of high heels on a shiny, hard floor. I have a briefcase. I am walking purposefully, click-clack-click-clack. That is the entire dream.

I dreamed of being competent.

I have never felt more incompetent than when I was pregnant. I was about four months along, extremely uncomfortable, and at work when I started bleeding. When you are a black woman, having a body is already complicated for workplace politics. Having a bleeding, distended body is especially egregious. I waited until I filed my copy, by deadline, before calling my husband to pick me up.

That day I sat in the waiting room of my obstetrics office for 30 minutes, after calling ahead and reporting my condition when I arrived. After I had bled through the nice chair in the waiting room, I told my husband to ask them again if perhaps I could be moved to a more private area. The nurse looked alarmed, about the chair, and eventually ushered me back. When the doctor arrived, he explained that I was probably just too fat and that spotting was normal, and he sent me home. Later that night my ass started hurting. I walked. I stretched. I took a hot bath. I called my mother. Finally, I called the nurse. She asked if my back hurt. I said no. It was my butt that hurt. She said it was probably constipation. I should try to go to the bathroom. I tried that for all the next day and part of another. By the end of three days, my butt still hurt and I had not slept more than 15 minutes straight in almost 70 hours.

I went to the hospital. They asked again about my back, implied I had eaten something “bad” for me and begrudgingly, finally decided to do an ultrasound. The image showed three babies, only I was pregnant with one. The other two were tumors, larger than the baby. The doctor told me, “If you make it through the night without going into preterm labor, I’d be surprised.” I was checked into the maternity ward. Eventually a night nurse mentioned that I had been in labor for three days. “You should have said something,” she scolded me.

After several days of labor pains that no one diagnosed because the pain was in my butt and not my back, I could not hold off labor anymore. I was wheeled into a delivery operating room, where I slipped in and out of consciousness. At one point I screamed, “Motherf-cker.” The nurse told me to watch my language. I begged for an epidural. After three eternities an anesthesiologist arrived. He glared at me and said that if I wasn’t quiet he would leave and I would not get any pain relief. Just as a contraction crested, the needle pierced my spine and I tried to be still and quiet so he would not leave me there that way. Thirty seconds after the injection, I passed out before my head hit the pillow.

When I awoke I was pushing and then my daughter was here. She died shortly after her first breath. The nurse wheeled me out of the operating room to take me to recovery.

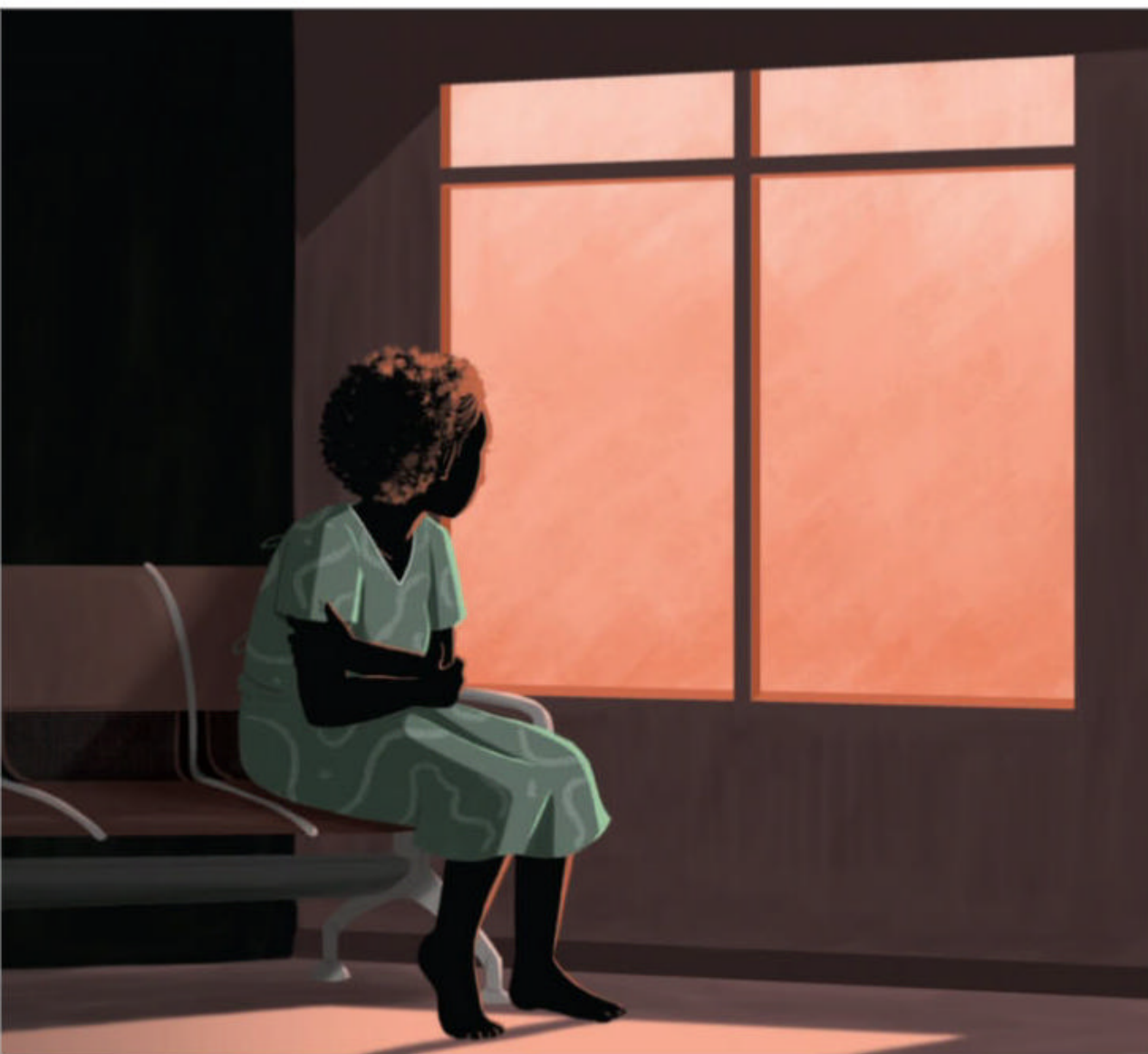
The health care machine could not imagine me as competent, and so it neglected me until I was incompetent

I held my baby the whole way, because apparently that is what is done. After making plans for how we would handle her remains, the nurse turned to me and said, “Just so you know, there was nothing we could have done, because you did not tell us you were in labor.”

EVERYTHING ABOUT THE STRUCTURE of medical care had filtered me through assumptions of my incompetence. There it was, what I had always been afraid of, what I must have known since I was a child I needed to prepare to defend myself against, and what it would take me years to accept was beyond my control. As with millions of women of color, especially black women, the health care machine could not imagine me as competent, and so it neglected me until I was incompetent. Pain short-circuits rational thought. It can change all of your perceptions of reality. Pain, like pregnancy, is inconvenient for bureaucratic efficiency and has little use in a capitalist regime. When the medical profession systematically denies the existence of black women’s pain, underdiagnoses our pain, refuses to treat our pain, health care marks us as incompetent bureaucratic subjects. Then it serves us accordingly.

The assumption of black women’s





incompetence supersedes even the most powerful status cultures in all of neo-liberal capitalism: wealth and fame. In 2017, Serena Williams gave an interview describing how she had to bring to bear the full force of her authority as a global superstar to convince a nurse that she needed a treatment after the birth of her daughter. The treatment likely saved Serena's life.

The Centers for Disease Control and Prevention says black women are more than 200% more likely to die from pregnancy- or childbirth-related causes than are white women. Medical doctors surely know about these disparities, right? Why, then, would a global superstar have to intervene so directly in her postnatal care, and what does that say about how poorer, average black women are treated when they give birth?

To get the "health care" promised by the health care bureaucracy, it helps tremendously if the bureaucracy assumes that you are competent. When I called the nurse and said I was bleeding and in pain, she needed to hear that a competent person was on the phone. Instead, something about me and the interaction did not read as competent. That is why I was left in a general waiting room rather than rushed to a private room with the equipment necessary to

treat a pregnancy crisis. When my butt hurt, the doctors and nurses did not read that as a competent interpretation of contractions, so no one addressed my labor pains for over three days. At every step of the process of what I would learn later was a fairly typical pregnancy for a black woman in the U.S., I was rendered an incompetent subject with exceptional needs that fell beyond the scope of reasonable health care.

"Black babies in the United States die at just over two times the rate of white babies in the first year of their life," says Dr. Arthur James, an ob-gyn at Wexner Medical Center at the Ohio State University in Columbus. When my daughter died, she and I became statistics.

SOCIOLOGIST Patricia Hill Collins once called on the idea of controlling images, those stereotypes that are so powerful, they flatten all empirical status differences among a group of people to reduce them to the most docile, incompetent subjects in a social structure. What I remember most about the ordeal, groggy from trauma and pain and narcotics, is how nothing about who I was in any other context mattered to the assumptions of my incompetence. I spoke in the way one might expect of someone with a lot of formal education. I

had health insurance. I was married. All of my status characteristics screamed "competent," but nothing could shut down what my blackness screamed when I walked into the room.

The prevalent perception of black women as unruly bodies and incompetent caretakers overrules even the most dominant stereotype about us—namely, that we are superhuman. The image of black women as physically strong without enough vulnerability to warrant consideration is one of the greatest cultural exports from the racist, sexist U.S. hierarchy. We are undisciplined yet steadfastly committed to the care of others. We were good nannies until global antiblackness made the world's immigrant brown women cheaper to import. It might seem that the culture's perennial strong woman would also be competent. But incompetent and superhero do not actually conflict in the context of essential notions about gender, race, class and hierarchy.

Black women are superheroes when we conform to others' expectations of us or serve someone or something else. When we are sassy but not smart, successful but not happy, competitive but not actualized—then we have some inherent wisdom. When we perform some existential service to men, to capital, to political power, to white women and even to other "people of color" who are marginally closer to white than they are to black, then we are superwomen. We are fulfilling our purpose in the natural order of things. When, instead, black women are strong in service of themselves, that same strength, wisdom and wit become evidence of our incompetence.

What so many black women know is what I learned as I sat at the end of a hallway with a dead baby in my arms. The networks of capital, be they politics or organizations, work most efficiently when your lowest status characteristic is assumed. And once these gears are in motion, you can never be competent enough to save your own life.

McMillan Cottom is an assistant professor of sociology at Virginia Commonwealth University. This essay is excerpted with permission from THICK: And Other Essays.

DIVIDING LINES

*THE HUMAN
FACE OF GLOBAL
MIGRATION*

PHOTOGRAPHS BY DAVIDE MONTELEONE FOR TIME



**Merlin Alfaro, 31, and
her children, José
Luis Guevara, 3, and
Maydelin Guevara, 7,
traveled from their
home in Honduras to
Tijuana, Mexico, at the
southern U.S. border
with a migrant caravan
in late 2018**



BY HALEY SWEETLAND EDWARDS

From where Violeta Monterroso stood, in a migrant encampment near one of Tijuana's main border crossings, she could almost see San Diego, the shimmering American city just beyond the frontier fence. She could see American cars as they slid down a highway and disappeared toward a ghostly skyline, and she could imagine what lay almost within reach. But that promised land was also infinitely distant. From the Mexican side of the border, mired in inches of mud that reeked of broken portable toilets, the entire U.S. might as well have been a mirage.

When Monterroso and her husband Cándido Calderón arrived in late November with their children, Kenia Jasmin, 12; Isaac, 11; and Yeimi, 9, they added their names to the bottom of a list in a thick book. There were more than 5,000 migrants ahead of them waiting to request asylum in the U.S., and because of recent changes in policy, American authorities were processing only 40 to 100 requests a day. Monterroso and Calderón expected it would take months before their names were called.





‘There is nobody that can protect us there. We have seen in the other cases, they kill the people and kill their children.’

—VIOLETA MONTERROSO

But they were willing to do whatever it took. Going back to Guatemala was simply not an option, they said. Monterroso explained that in October, their family was forced to flee after a gang threatened to murder the children if they didn’t pay an exorbitant bribe, five months’ worth of profits from their tiny juice stall. The family hid for a day and a half in their house and then sneaked away before dawn. “There is nobody that can protect us there,” Monterroso said. “We have seen in the other cases, they kill the people and kill their children.” Her voice caught. “The first thing is to have security for them,” she said of her kids, “that nothing bad happens to them.”

All told, more than 159,000 migrants filed for asylum in the U.S. in fiscal year 2018, a 274% increase over 2008. Meanwhile, the total number of apprehensions along the southern border has decreased substantially—nearly 70% since fiscal year 2000. President Donald Trump has labeled the southern border a national crisis. He refused to sign any bill funding the federal government that did not include money for construction of a wall along the frontier, triggering the longest shutdown in American history, and when Democrats refused to budge, he threatened to formally invoke emergency powers. The President says the barrier, which was the centerpiece of his election campaign, is needed to thwart a dangerous “invasion” of undocumented foreigners.

But the situation on the southern border, however the political battle in Washington plays out, will continue to frustrate this U.S. President, and likely his successors too, and not just because of continuing caravans making their way to the desert southwest. Months of reporting by TIME correspondents around the world reveal a stubborn reality: we are living today in a global society increasingly roiled by chal-

lenges that can be neither defined nor contained by physical barriers. That goes for climate change, terrorism, pandemics, nascent technologies and cyberattacks. It also applies to one of the most significant global developments of the past quarter-century: the unprecedented explosion of global migration.

Monterroso and Calderón, along with the thousands of other families who had gathered in late November in encampments outside Tijuana, represent a tiny fraction of the record-breaking 258 million international migrants, defined by the U.N. as people living outside their country of birth. The total number has more than doubled since 1985 and ballooned by 36 million since 2010.

They abandoned their homes for different reasons: tens of millions went in search of better jobs or better education or medical care, and tens of millions more had no choice. More than 5.6 million fled the war in Syria, and a million more were Rohingya, chased from their villages in Myanmar. Hundreds of thousands fled their neighborhoods in Central America and villages in sub-Saharan Africa, driven by poverty and violence. Others were displaced by catastrophic weather linked to climate change.

Taken one at a time, each is an individual, a mixture of strengths and weaknesses, hope and despair. But collectively, they represent something greater than the sum of their parts. The forces that pushed them from their homes have combined with a series of global factors that pulled them abroad: the long peace that followed the Cold War in the developed world, the accompanying expansion of international travel, liberalized policies for refugees and the relative wealth of developed countries, especially in Europe and the U.S., the No. 1 destination for migrants. The force is tidal and has not been reversed by walls,

Cándido Calderón, 42, fled Guatemala in mid-October 2018 with his wife Violeta Monterroso, 42, and their children, Kenia, 12; Isaac, 11; and Yeimi, 9 (pictured on the previous page). Gang members threatened to kill Calderón and Monterroso’s children if they did not pay roughly \$1,200—the equivalent of five months’ income from the family’s juice stall



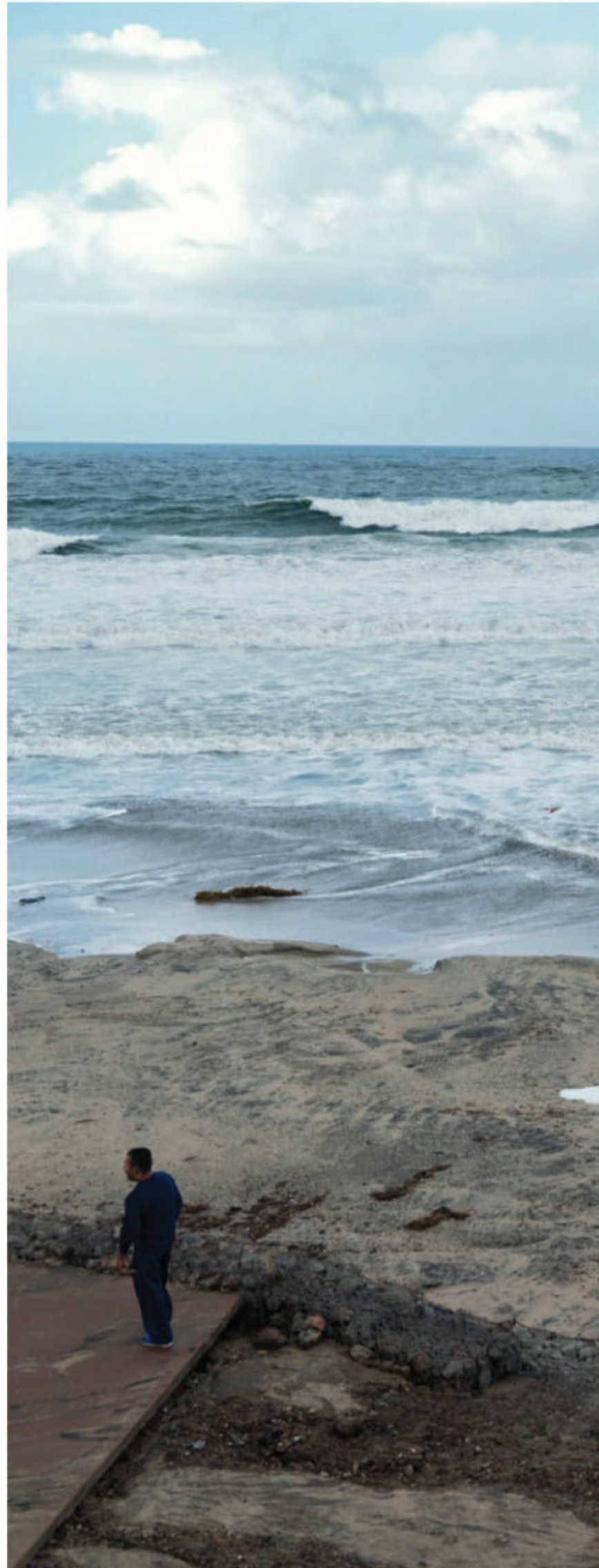
by separating children from their parents or by deploying troops. Were the world's total population of international migrants in 2018 gathered from the places where they have sought new lives and placed under one flag, they would be its fifth largest country.

The mass movement of people has changed the world both for better and for worse. Migrants tend to be productive. Though worldwide they make up about 3% of the population, in 2015 they generated about 9% of global GDP, according to the U.N. Much of that money is wired home—\$480 billion in 2017, also according to the U.N.—where the cash has immense impact. Some will pay for the passage of the next migrant, and the smartphone he or she will keep close at hand. The technology not only makes the journey more efficient and safer—smugglers identify their clients by photos on instant messaging—but, upon arrival, allows those who left to keep in constant contact with those who remain behind, across oceans and time zones.

Yet attention of late is mostly focused on the impact on host countries. There, national leaders have grappled with a powerful irony: the ways in which they react to new migrants—tactically, politically, culturally—shape them as much as the migrants themselves do. In some countries, migrants have been welcomed by crowds at train stations. In others, images of migrants moving in miles-long caravans through Central America or spilling out of boats on Mediterranean shores were wielded to persuade native-born citizens to lock down borders, narrow social safety nets and jettison long-standing humanitarian commitments to those in need.

The U.S., though founded by Europeans fleeing persecution, now largely reflects the will of its Chief Executive: subverting decades of asylum law and imposing a policy that separated migrant toddlers from their parents and placed children behind cyclone fencing. Trump floated the possibility of revoking birthright citizenship, characterized migrants as “stone cold criminals” and ordered 5,800 active-duty U.S. troops to reinforce the southern border. Italy refused to allow ships carrying rescued migrants to dock at its ports. Hungary passed laws to criminalize the act of helping undocumented people. Anti-immigrant leaders saw their political power grow in the Czech Republic, Slovenia, Sweden, Germany, Finland, Italy and Hungary, and migration continued to be a factor in the Brexit debate in the U.K.

These political reactions fail to grapple with a hard truth: in the long run, new migration is nearly always a boon to host countries. In acting as entrepreneurs and innovators, and by providing inexpensive labor, immigrants overwhelmingly repay in long-term economic contributions what they use in short-term social services, studies show. But to maximize that future good, governments must act rationally to establish humane policies and ade-



**The U.S. border viewed
from Tijuana, where it
meets the Pacific Ocean**





quately fund an immigration system equipped to handle an influx of newcomers.

It is impossible, of course, for individual migrants like Monterroso and Calderón to fully appreciate their role in this immense global movement. When they left Guatemala on that dark morning, they could hardly consider the news footage that would frame the migrant caravan as a column aimed at breaching the U.S. homeland. But they got a sense of things when they arrived. In Tijuana, Kenia and Yeimi knelt on a sidewalk, piecing together a *Frozen*-themed jigsaw puzzle. But just across the border, U.S. soldiers, fresh from overseas deployments, gathered to defend the U.S. against people like them. The sound of a military chopper cut the air.

IN MURFREESBORO, TENN., Albertina Contreras sits in a folding chair behind a Mexican restaurant just down the street from the small brick house she shares with two other families. She wears brown san-

dals, despite the crisp December weather, and when she speaks, her eyes periodically brim with tears. But she seems less nervous than relieved. She and her 11-year-old daughter Yaquelin Yohana García Contreras are together now, she says, safe in the U.S., thanks to the grace of God.

It's been a long year. Albertina and Yaquelin fled their home in Cubulco, Guatemala, in early May. It took them three weeks and \$6,000 borrowed for the trip. Albertina, 27, says that for years she was raped and beaten by different men in her town, and she's worried that Yaquelin, her eldest, who is at that tender age between childhood and adolescence, would soon face a similar fate. "She's on the cusp of that time period of being 13 or 14 years old, and that's when the girls get picked up," says Albertina, describing the ubiquitous sexual violence that many Central American women endure. She waits to recount details of her own horrific assaults until her daughter is out of earshot. "There are a lot of women



in my country who are killed,” she says.

Traveling to the U.S. felt like a last refuge to Albertina and Yaquelin, but when they crossed into Texas just before dawn in late May, they stumbled into a different kind of nightmare. A few hours after they arrived, U.S. officials forced them apart. No one would tell Albertina where they were taking her daughter, and no one told Yaquelin when she would see her mom again. “It’s humiliation,” Albertina says. “They tell you, ‘You’re illegal. What are you doing in our country? You know they’re going to deport you.’” The worst part was that she had no way of contacting her daughter, and when she finally got her on the phone in early July, all the girl did was cry. They were separated for more than a month, an eternity.

Albertina and Yaquelin didn’t know it at the time, but they were caught up in a major shift in U.S. policy toward asylum seekers. Announced by former Attorney General Jeff Sessions in April 2018, it resulted in untold thousands of children under 18 being forcibly

separated from their parents at the U.S. border last year. Sessions presented it as common sense. People who cross the border illegally are committing a crime, he explained, and therefore must serve jail time. And since children can’t be jailed with their parents, they must be removed from their families. “It’s that simple,” Sessions said. “If you don’t like that, then don’t smuggle children over our border.”

The policy was unprecedented in modern U.S. immigration history and, because of it, American officials, following federal orders, acted en masse to detain children. Because of poor record keeping, scores of parents were deported without their kids, advocacy groups say, and hundreds of migrant children may end up permanently in U.S. foster care. Officials are still scrambling to figure out how many families may have been torn apart. A January 2019 report from the Department of Health and Human Services revealed that the Trump Administration may have begun separating children from their families at the U.S.

From left: María Herrera Larios, 22; Manuel Omar Meza Girón, 20; and David Maldonado, 31, all fled their homes in Honduras to travel with a migrant caravan to Tijuana





**Francisco Soto, 23, and
Darileni Rodríguez, 25,
left their home in
Honduras to join the
migrant caravan with
their three children
in tow: Frederick
Rodríguez, 2; Sharon
Pérez Rodríguez, 3
(twin on left); and Rous
Pérez Rodríguez, 3
(twin on right)**

‘I have walked a long way. I have faith in getting to the other side, and if I don’t make it, well, that is the will of God.’

—DAVID MALDONADO, 31

border in 2017, long before Sessions announced the new policy. Thousands more children may have been separated from their families than previously known.

While the Trump Administration, in the face of intense, bipartisan political pressure, eventually distanced itself from the effort, the question at the heart of the policy remained unanswered: What moral obligation do wealthy nations like the U.S. owe to the world’s most vulnerable? Or, to put that another way: To whom should Americans grant refuge?

In the past, policymakers attempted to answer that question precisely. When the U.S. signed the 1967 U.N. refugee protocols, a refugee was defined as someone outside his country of origin who is afraid to return because of persecution “for reasons of race, religion, nationality, membership of a particular social group, or political opinion.” In 1979, Congress passed the Refugee Act, committing the U.S. by law to grant asylum to anyone who met that description. But in a changing world, many of the international migrants arriving at the U.S. border no longer fit neatly in any legal category. The Cold War refugee protocols are silent about migrants fleeing rape or corrupt police harassment, or climate-related destruction, or hunger so severe that kids wake up every night crying.

Darileni Rodríguez, 25, left Honduras with her husband, her 3-year-old twin girls and her niece, because they didn’t have enough food. “Sometimes you go one day, two days, without eating,” she said. “I can take it, but the children can’t.” Patricia Hernández, 39, fled her town in El Salvador when she was raped and stabbed after being accused of reporting a gang murder to police. Should either qualify for asylum? What about David Maldonado, 31, a wiry construction worker who fled Honduras after gang members shot him with a

9-mm pistol, once in each leg, just above the knee, for taking a job on a construction site controlled by a rival gang? What about Luz, who fled Honduras with a fresh cesarean scar because her husband beat her so violently she feared he’d kill her next time?

There are no easy policy answers to these questions, no hard-and-fast algorithm that decides whether Albertina and Yaquelin get to stay in Tennessee. What’s clear, however, is that two years into Trump’s presidency, his black-and-white approach to immigration is having a measurable effect, according to Syracuse University’s Transactional Records Access Clearinghouse. By June 2018, less than 15% of people applying for asylum were allowed to proceed through the process, down from nearly 33% a year earlier. And as of last year, the U.S. agreed to accept fewer refugees than it has in more than 40 years.

AMERICANS ARE HARDLY ALONE in finding their nation shaped by its reaction to waves of newcomers. The collapse of the Venezuelan economy has driven more than 3 million people into neighboring countries. And violence in sub-Saharan Africa, the Middle East and Afghanistan has made Uganda, Kenya, Turkey, Jordan, Lebanon and Pakistan into the world’s largest refugee camps. Europe, which from 2015 to 2016 received roughly 2 million new migrants, mostly from the Middle East and Africa, is seeing the political landscape remade in many countries as a result.

Sami Baladi and Mirey Darwich, who fled their middle-class home in Aleppo, Syria, in 2013, were among the first wave of Syrians to arrive on European shores. They both remember the day they left with searing clarity. The war had come close, and they feared for their two young daughters’ lives. They called a friend and climbed into the back of Sami’s

Carlos Guerra, 62, traveled with a migrant caravan from his home in Copán, Honduras



pickup truck, lying flat on the bed beneath a cover. Sami held their daughter Fabienne, who was 6 years old at the time, while Mirey carried Joyce, who was 1½. They remember the sound of bullets zipping over them, the boom of distant mortar fire. When they finally boarded a plane, a packed troop transport, the pilot warned his human cargo to prevent their cell phones from creating any light, then took off down a darkened runway, flying in a steep corkscrew to avoid fire. Mirey, who was pregnant with their third child, Clara, almost threw up. Sami, overwhelmed, felt nothing at all. “I didn’t have the energy to feel,” he says.

When the Baladis first arrived in their new town, Anröchte, Germany, they were a rarity. Fabienne was the only Middle Eastern kid in her new elementary school, and it was impossible to find a good Syrian restaurant. “When we first came, we were the only Arabic people in Anröchte,” says Mirey. “When I heard Arabic in the street, I would stop them.” Seven years later, everything has changed. From 2011 to 2017, roughly 500,000 Syrians arrived in Germany, according to U.N. data, giving the nation the world’s fifth largest population of Syrians outside Syria. Under the leadership of Chancellor Angela Merkel’s centrist party, Germany accepted thousands of migrants from other countries as well. Every fifth person in Germany today is either an immigrant or the child of an immigrant, according to the German Federal Statistics Office. By 2018 it was no longer rare to hear Arabic spoken in Anröchte, and Fabienne, who’s in seventh grade now, chatters away in a mixture of German and Arabic with her friends from school.

The surge of new migrants to Europe from the Middle East and Africa was driven by geopolitics. Worsening wars in Syria and Afghanistan were compounded by ISIS’s newfound control of a third of Iraq, authoritarian rule deepening in Eritrea and raging local conflicts in West Africa. But the rapid influx of new immigrants to the region has cut both ways. While newcomers now have a larger immigrant community to rely on, explains Mirey, who wears bleached blond streaks in her long brown ponytail, Germans have inarguably hardened against them.

In national elections last year, the far-right anti-immigration party Alternative for Germany nearly tripled its vote share, winning its first-ever seats in Parliament—a win widely seen as a resounding rebuke to Merkel’s immigration platform.

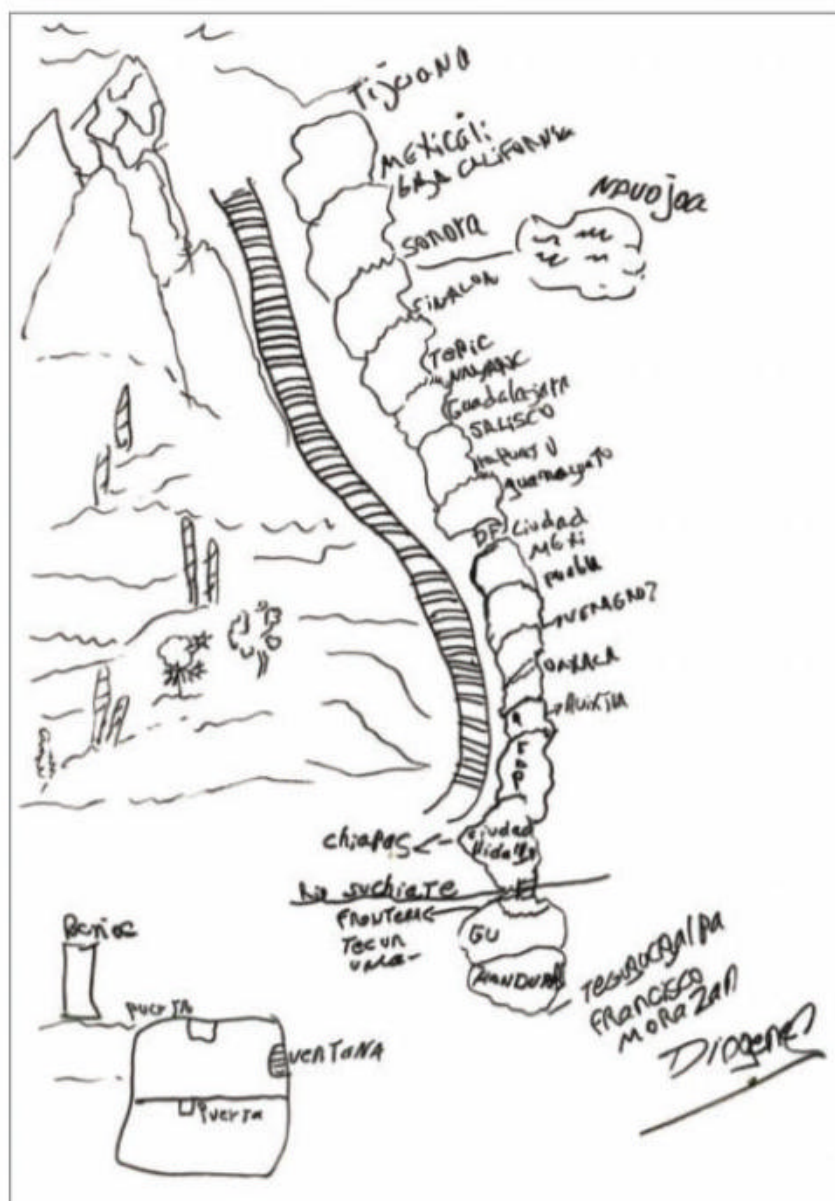
The influx of new migrants to Europe has dropped precipitously since 2016. Arrivals in Europe today are roughly equivalent to what they were in 2014. But, as in the U.S., voters in the E.U. are moved less by statistics and more by the widespread perception of “out of control” migration—language often fueled and perpetuated by populist leaders. And the rhetoric is working.

In elections across the E.U. in 2018, anti-immigrant politicians, campaigning on promises to curb migration and protect Europe’s “Judeo-Christian culture,” have won unprecedented power. Voters in the Czech Republic reelected the anti-immigrant President Miloš Zeman in January 2018 and, nine months later, elevated the anti-immigrant Civic Democrats to power during Senate elections. Voters in Sweden, Slovenia, Hungary and Italy followed suit, giving their own right-wing parties a boost in parliamentary elections. In Italy, the virulently anti-immigrant party Lega won nearly 18% of votes, more than four times the votes it had just five years earlier. By the end of the year, polls suggested that if an election were held again today, Lega would bring in 30% of the vote.

Hungarian Prime Minister Viktor Orbán, who since 2010 has quietly transformed his nation into what he brags is an “illiberal democracy,” has also raised his profile significantly

in recent years, largely by embracing hard-line anti-migrant policies, describing Muslims as “invaders” and forcing migrant-aid NGOs to pay a 25% tax on foreign contributions. In May, as his government forced George Soros’ pro-democracy foundation out of the country, Orbán crowed, “The era of liberal democracy is over.”

Italy’s Deputy Prime Minister Matteo Salvini, who has emerged as the de facto leader of Italy, has played a role similar to Orbán’s in southern Europe. Like Trump, Salvini characterizes migrants broadly as criminals and conflates crime rates with immigration rates. “If I could reduce the number of



Diógenes Banegas, 34, drew a map of his journey to the U.S. border from his home in Tegucigalpa, Honduras



Yaquelin Yohana García Contreras, 11, was separated from her mother Albertina Contreras, 27, at the U.S. border in May 2018 for nearly six weeks. Albertina, who was sexually abused as a girl, fled Guatemala in hopes that Yaquelin can avoid a similar fate. They await a decision on their asylum request in Murfreesboro, Tenn., after being reunited at the Nashville airport



are young, are key to turning around those dismal demographic indicators. In 2017, three-quarters of all migrants were of working age, compared with 57% of the global population, and Mannan's sons, who are 15 and 19 years old, will enter the workforce in the coming years, just as tens of millions of baby boomers are leaving it. "Politicians today are shooting themselves in the foot by saying they don't want migrants," says Hanne Beirens, the acting director of Migration Policy Institute Europe. "In the not-so-distant future they are going to be in the position of telling their people, 'Actually, we need these migrants.'"

Measuring the total economic impact of migrants across all industries is an impossible task. Migrants' collective influence on an economy shifts depending on their skills and levels of education, and the industries in which they work. But in general, studies show that while first-generation migrants use more social services and rely more heavily on the safety net than native-born citizens, they reduce their need for such aid over time. The economic outcomes of children of immigrants tend to converge with those of children of native-born parents, according to a 2018 study by the Brookings Institution.

There's also widespread agreement among researchers that migration, as a whole, raises a nation's total economic output, according to analysis by the nonpartisan Congressional Budget Office. By increasing the number of workers in the labor force, immigrants, who also drive demand for goods and services, make the U.S. economy more productive and contribute to state and federal coffers. One study estimated that foreign-born workers contributed roughly \$2 trillion to the U.S. economy in 2016. That's about 10% of annual GDP.

Basil Bacall, 54, fled Iraq in the 1980s and now owns 22 hotels in Michigan, which together gross more than \$100 million each year. As a philanthropist, Bacall has raised more than \$10 million for his nonprofit, which supports refugees, and as the CEO of Elite Hospitality Group, a development and management company, he employs more than 1,000 people, about 40% of whom he estimates are foreign-born. Without that immigrant workforce, he says, he'd struggle to keep growing while keeping prices down. "We could not sustain the same amount of development or create as many jobs," he says.

Bacall is a Republican, but he disagrees with the Trump Administration's immigration policy. If he had been a young migrant from Iraq today, he says, there's "zero chance" he'd be let in. "I wouldn't have had a chance to make an impact or give back."

THE CHALLENGE FOR LEADERS, in a changing world awash in an enormous population of international migrants, is to ease the fears of native-born populations while simultaneously maximizing the benefits of the



Albertina Contreras and her daughter at a restaurant in Murfreesboro, Tenn.



‘Sometimes you go one day, two days, without eating. I can take it, but the children can’t.’

—DARILENI RODRÍGUEZ, 25

pluralistic societies already taking root. Framing the challenge honestly is a good place to start.

Despite the fevered rhetoric in Washington, there were actually fewer undocumented immigrants living in the U.S. in 2016 than in 2007, according to a Pew Research Center study. Apprehensions along the border with Mexico plummeted in 2017 to their lowest level since 1971. Inside the U.S., immigrants are less likely than U.S. natives to commit crimes (despite Trump’s suggestion to the contrary) and are overwhelmingly more educated than immigrants were in the past. According to a Brookings Institution analysis of U.S. Census Bureau data, the biggest group, 41%, of new immigrants from 2010 to 2017 came not from Latin America but from Asia. And as whole, 45% of immigrants to the U.S. had college degrees—compared with roughly 35% of non-Hispanic white Americans.

But statistics go only so far. In elections, facts often matter less than voters’ feelings. In fact, studies show that native-born U.S. and European citizens’ perception of immigration writ large, and the character of new immigrants in particular, is largely wrong. Native-born citizens dramatically overestimate how many immigrants live in their own communities. They also underestimate the average immigrant’s skills and education levels while overestimating their poverty rate and dependence on social safety nets. Native-born citizens also overestimate the share of immigrants who are Muslim.

But as always in politics, perception is reality. A 2017 study by Democracy Corps, a research firm co-founded by Democratic pollster Stanley Greenberg, found that white Trump voters without a bachelor’s degree, who had voted for Obama and identified as Democrats or Independents, over-

whelmingly felt that their culture was under siege. America, they reported, was divided between white, struggling, working-class people like “us” and a non-white, often immigrant “them.” That sense of cultural siege held even in a community that remains more than 80% white, the study found. Researchers in a 2018 Harvard study on immigrant perception reported similar findings. “While all respondents have misperceptions” about immigrant communities, the researchers wrote, “those with the largest ones are systematically the right-wing, the non-college-educated and the low-skilled working in immigration-intensive sectors.”

Experts say correcting misperceptions about newcomers is only half the battle. The other half requires wealthy nations, like the U.S. and much of Europe, to rationalize their immigration policies, streamline asylum systems to eliminate torturous wait times, create a better system of temporary work visas and consider offering safety nets to the low-wage native-born workers most likely to compete with immigrant labor.

In the U.S., comprehensive immigration reform has consistently stalled in Congress despite bipartisan support. Legislative proposals to fix the system would require restructuring visa criteria and creating a legal path to citizenship for certain immigrant groups, including the so-called Dreamers, who were brought to the U.S. illegally when they were children. Most bipartisan bills also include more funding for technology-based border enforcement. Instead of building a physical wall, as Trump has promised, existing bills propose cameras, radar towers and fiber-optic cables to secure the boundary.

In the E.U., stuttering efforts at immigration reform have focused on which E.U. countries are

Eman Albadawi, 34, an English teacher, fled Aleppo, in 2015, after some of her students began disappearing and others showed up with injuries from bombings. She now lives with her three young children in Anröchte





Sami Baladi, 43, and his wife Mirey Darwich, 37 (far right), fled the civil war in Syria with their children Fabienne, 12, and Joyce, 7. Darwich was pregnant with Clara, 4, when they left their home. The family now runs a Syrian restaurant in Lippstadt, Germany



obliged to settle refugees and economic migrants, and how to distinguish between them. Immigration-reform advocates have also focused on creating uniform integration programs across the E.U. and on efforts to enforce asylum denials.

But any long-term solution, experts insist, must address the reasons people leave home in the first place. In Central America, that means establishing security and rule of law. Texas Republican Representative Will Hurd, among others, has suggested implementing a comprehensive foreign aid plan for much of the region, comparable to the Marshall Plan that rebuilt Europe after World War II. Doris Meissner, onetime head of the former U.S. Immigration and Naturalization Service and the director of the Immigration Policy Program at the Migration Policy Institute, has suggested a similar, international effort to funnel humanitarian aid and establish stability and export markets in nations from which tens of thousand of people flee each year.

Destination nations can help by standardizing migrants' reception. Last year, world leaders debated two new agreements designed to establish international norms governing how nations should treat refugees and asylum seekers. In December, the U.N. General Assembly took steps in that direction, adopting two nonbinding compacts. One of the agreements, the Global Compact for Migration, is the first-ever U.N. agreement creating a comprehensive global approach to international migration. The U.S. did not participate in the negotiations and does not support the agreements.

But protocols and treaties can, at best, hope to respond to the human emotions and hard realities that drive migration. No wall, sheriff or headscarf law would have prevented Monterroso and Calderón, or Yaquelin and Albertina Contreras, or Sami Baladi and Mirey Darwich from leaving their homes. Migrants will continue to flee bombs, look for better-paying jobs and accept extraordinary risks as the price of providing a better life for their children.

The question now is whether the world can come to define the enormous population of international migrants as an opportunity. No matter when that happens, Eman Albadawi, a teacher from Syria who arrived in Anröchte, Germany, in 2015, will continue to make a habit of reading German-language children's books to her three Syrian-born kids at night. Their German is better than hers, and they make fun of her pronunciation, but she doesn't mind. She is proud of them. At a time when anti-immigrant rhetoric is on the rise, she tells them, "We must be brave, but we must also be successful and strong." —*With reporting by* ARYN BAKER/ANRÖCHTE, GERMANY; MELISSA CHAN, JULIA LULL, GINA MARTINEZ, THEA TRAFF/NEW YORK; IOAN GRILLO/TIJUANA; ABBY VESOULIS/MURFREESBORO, TENN.; and VIVIENNE WALT/PARIS



Sami Baladi's youngest daughter Clara was born in Germany, after the family fled Aleppo, in the midst of civil war



CHARLES TYRWHITT

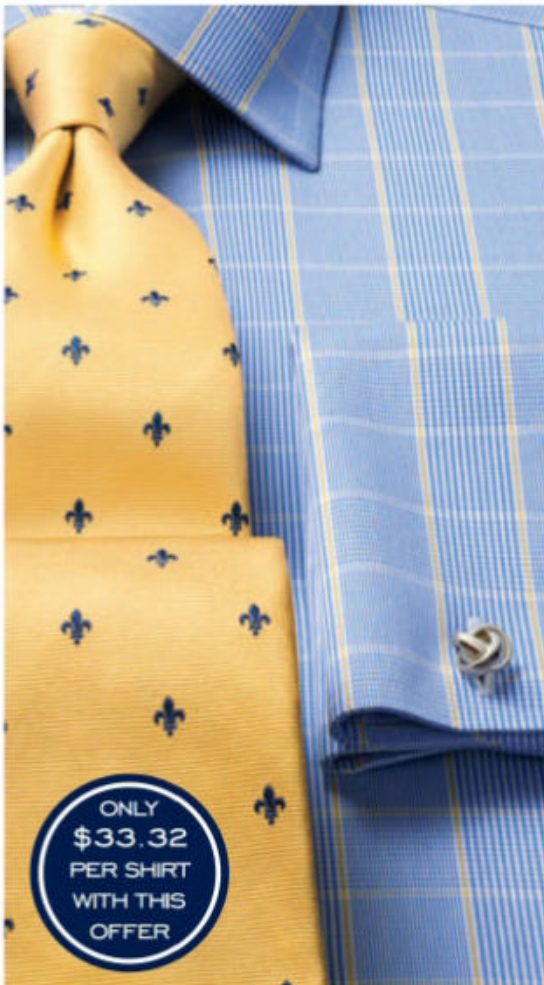
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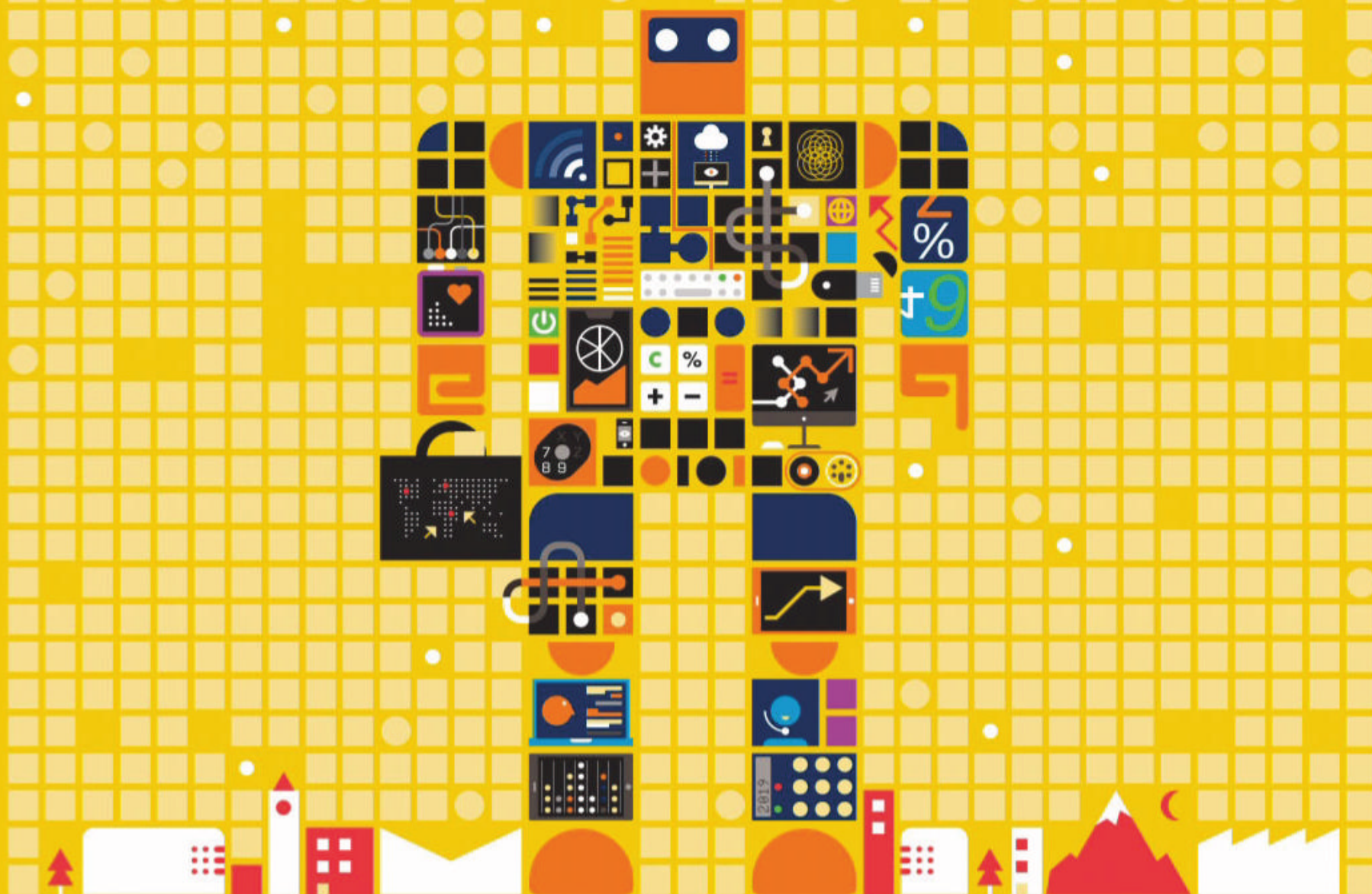
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*'The impacts
of global
temperature
rise have never
been as clear.'*

**CHRISTIANA
FIGUERES**



**'Women
make up
only 12%
of the AI
research
world.'**

FEI-FEI LI

*'We are
determined
to connect
everyone and
everything,
everywhere.'*

**MUKESH
AMBANI**



ONE BIG IDEA

**'When
girls are
educated,
they are
empowered.'**

QUEEN RANIA



*'The rise of
drug-resistant
bacteria is
jeopardizing
decades
of progress.'*

**TEDROS ADHANOM
GHEBREYESUS**





**‘Will the world
be able to
cut child-
mortality rates
in half again?’**

MELINDA GATES

**‘The next
generation
is desperate
to protect
nature.’**

**JANE
GOODALL**



**Leaders in health, technology, the environment
and other fields share their most urgent goals**

**‘We should
consider the
possibility
for central
banks to
issue their
own digital
currencies.’**

CHRISTINE LAGARDE



**‘Every
year we learn
more about how
the digitization
of health
information can
help people live
healthier lives.’**

**BERNARD J.
TYSON**



**‘We have to
make a clean
economy
affordable for
everyone—and
we have a moral
and economic
imperative
to act now.’**

JUSTIN TRUDEAU





Bring diversity to artificial intelligence

BY FEI-FEI LI

Artificial intelligence is the quest to build machines with human-like intellectual capabilities. But in an industry known for its struggles with representation, how can we ensure they're inspired by the full range of human experience? Women make up only 12% of the AI research world and 26% of the tech workforce, while people of color fill less than 20% of leadership roles.

My nonprofit, AI4ALL, is working to reverse this trend by bringing first-hand experience in university AI labs to students of high school age who often feel left out of tech: girls, ethnic minorities and residents of underserved communities. AI is a vast frontier with far more to explore than any single person, group or even nation can manage alone. It will rank among our greatest technological achievements, and everyone deserves to play a role in shaping it. That, more than anything else, will ensure the world of 2030 is a future worth looking forward to.

Li is co-director of Stanford University's Human-Centered AI Institute

Make digital cash safer for all

BY CHRISTINE LAGARDE

We should consider the possibility for central banks to issue their own digital currencies. A state-backed token, or perhaps an account held directly at the central bank, could help ensure that remote and marginalized regions are included in the digital revolution, and could help protect consumers. Without cash, too much power could accrue to a small number of outsize private-payment providers.

This is not science fiction. Central banks around the world are already considering these ideas, including those in Canada, China, Sweden and Uruguay. Of course, challenges remain, like risks to financial stability. But as technology changes, so must we.

Lagarde is chair of the International Monetary Fund



Discover badly needed antibiotics

BY TEDROS ADHANOM GHEBREYESUS

For almost a century, antibiotics have made once deadly infections treatable and curable. Now, we're losing them. The rise of drug-resistant bacteria is jeopardizing decades of progress, threatening our ability to prevent and treat common conditions like pneumonia and urinary-tract infections. The causes are many, including overuse and

misuse of antibiotics in humans and animals. But antibiotic resistance is also a market failure.

Compared with other types of drugs, antibiotics are not profitable for the pharmaceutical industry. As a result, there is a serious lack of promising new antibiotics in clinical development. One innovative model to address that is the Global Antibiotic Research & Development Partnership (GARDP). Set up by the World Health Organization (WHO) and the Drugs for Neglected Diseases initiative, the partnership is developing new treatments on a not-for-profit basis through public-private partnerships. One new antibiotic showing promise is for drug-resistant gonorrhea, an infection that has failed treatment with last-resort antibiotics in at least 10 countries. If it works, this partnership could be a model for how to increase access to and affordability of medicines, which is key to achieving universal health coverage.

Tedros is director-general of the World Health Organization



Connect everyone, everywhere

BY MUKESH AMBANI

I believe no Indian should be excluded from the prosperity promised by the fourth industrial revolution. That's why Jio, my company Reliance's digital startup, has helped India's mobile-data consumption to surge by over 1,400% since 2014. Within the space of a few years, we have gone from 2G and 3G to 4G and soon 5G speeds. By making voice calls and data affordable to almost everyone in India, Jio now offers a smartphone effectively for free. The U.N. has declared Internet access a human right, and India is where we have made the greatest disruptive contribution to fulfillment of this right.



Now we are determined to connect everyone and everything, everywhere. When data-driven intelligence is combined with society-wide empathy, we can transform the fourth industrial revolution into the first human-centered technological revolution, capable of solving complex problems. The developmental platform we have built in India can benefit the entire planet.

—
Ambani is chairman and managing director of Reliance Industries



Put a price on pollution for cleaner growth

BY JUSTIN TRUDEAU

Pollution isn't free. Millions around the world are already paying its price, from catastrophic floods to uncontrollable wildfires. We have to make a clean economy affordable for everyone—and we have a moral and economic imperative to act now.

Pricing pollution is the single most powerful way to cut emissions while driving economic growth. Since doing so in 1991, Sweden has grown its economy and cut its emissions by 60% and 25%, respectively. Here at home, the four provinces with a price on pollution in 2017 led the country in economic growth, while Canada led the G-7. As of 2019, it is no longer free to pollute anywhere in Canada. Lower emissions, cleaner air, a stronger economy. The science and economics behind pollution pricing are settled. In the international fight against climate change, a national price on pollution should be the norm. Indeed, it is already a necessity.

—
Trudeau is Prime Minister of Canada

Double down on saving children's lives

BY MELINDA GATES

Perhaps the greatest achievement of the past generation is the fact that the number of children who die each year has been cut in half. On my horizon in 2019? To make it possible

to cut child-mortality rates in half again. Over the past three decades, the world has established a group of four organizations that have saved millions of lives. You've likely never heard of them, but if you pay taxes, you've helped fund their success. Gavi has immunized more than 700 million children; the Global Fund pays for HIV treatment for half the people living with the virus; the Global Polio Eradication Initiative has pushed us to the brink of wiping out the disease. The newest, the Global Financing Facility, is focused on women's and children's health, including helping women plan their families—which means their children will be more likely to survive and prosper. All four need new funding this year. But some politicians in donor countries say they should invest less in the rest of the world. Will the world be able to cut child deaths in half again? It depends on what they decide.

—
Gates is co-founder of the Bill and Melinda Gates Foundation





Teach children how to nurture the planet

BY JANE GOODALL

My greatest reason for hope for our future is the passion of young people. When we listen to them and empower them, the next generation is desperate to protect nature. Unfortunately so many children are unable to spend time in nature because of education systems rooted in technology and geared only to the demands of a materialistic world. I began Roots & Shoots in 1991 to provide young people of all ages with the opportunity to choose projects to benefit people, animals and the environment. Today in some 80 countries, groups are taking action to heal the harms

we have inflicted. They are, for example, planting endemic species to encourage biodiversity, lobbying legislators about climate change, raising money for victims of natural disasters, volunteering in animal shelters. It is desperately important to encourage them as they work to heal the scars we have inflicted, and I urge philanthropists to invest in the education of young people to nurture the planet. The challenges we face are daunting, but nature is resilient, the human intellect incredible. So now, as our youth joins forces to tackle problems we have created, let us give them the support they need and help them in their fight to save the natural world—on which we ourselves depend.

—
Goodall is a primatologist and conservationist

Harness GMO crops to solve the food crisis

BY ROBERT T. FRALEY

As someone who helped pioneer genetically modified crops, I'm proud to see how much good they have accomplished. Despite consumer fears, the reality is GMO crops are safe—and can help solve both the sustainability and food-security issues our planet faces in the decades ahead. By combining biotechnology with gene editing, data science and digital tools, it will be possible to improve all the world's crops. I believe it's possible to not only double the food supply by 2050 but also to do it on less land than we farm today.

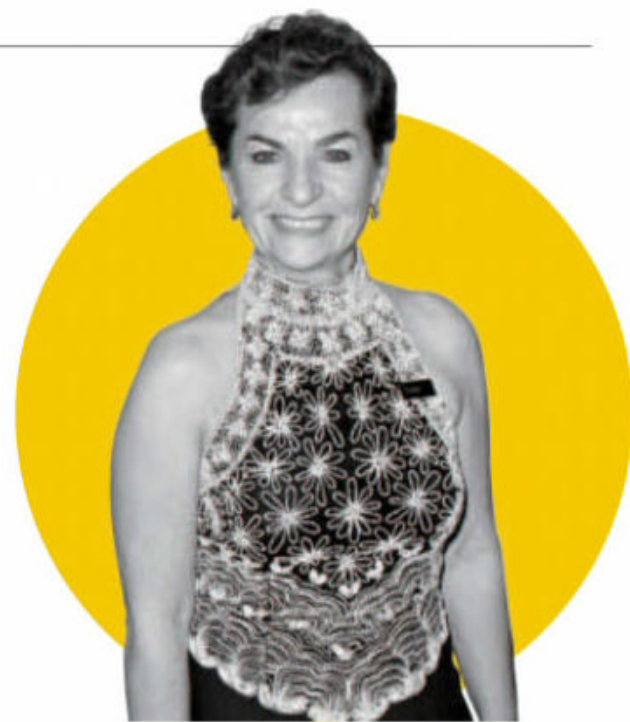
—
Fraley is former chief technology officer at Monsanto



Commit to a clear goal on global temperature rise

BY CHRISTIANA FIGUERES

In October 2018 the U.N. Intergovernmental Panel on Climate Change issued a special report commissioned by the world's governments to keep global temperature rise to “well below 2°C while striving for 1.5°.” The impacts of global temperature rise—caused by increasing CO₂ emissions—have never been as clear, nor action so urgent, as we are quickly approaching tipping points of no return. The decisions we take over the next two to three years are crucial for the unprecedented structural changes we must embark upon to safeguard our climate and clean up our air. This is a make-it-or-break-it moment. To help guide this decision-making, here's one idea for a simple but powerful strategy hack that can be implemented across the board. Now that we know the difference between 1.5°C and 2°C of warming—including twice as much physical damage, twice as many people subjected to life-threatening heat waves and fires—we have one clear path to fol-



low. We must focus every effort on striving for 1.5°C. Let's enact a “search and replace” across all strategic documents, including action plans, emission-reduction targets, risk and opportunity assessments: search for “well below 2” and replace it with “1.5.” Then act accordingly. It is not only the right thing to do, it is the only prudent and prosperous course of action.

—
Figueres is former executive secretary of the U.N. Framework Convention on Climate Change



Use Big Data to help stop suicides and self-harm

BY BERNARD J. TYSON

The potential for data and analytics to be used in powerful new ways and improve the way health care is delivered is immense. Every year we learn more about how the digitization of health information can help people live healthier lives and make treatment more effective when they get sick. Already, we are using these tools in cancer care to help ensure people get effective treatment. We are using it to monitor and predict the developments of epidemics and disease outbreaks in real time. And now we have the potential to apply it to an area I am particularly passionate about: mental health and wellness. My company Kaiser Permanente recently looked at whether we could use Big Data and machine learning to better predict the risk of self-harm or suicide after mental-health visits. It turns out these risks are in fact more predictable than previously thought. This kind of “predictive analytics” holds the promise of moving care further upstream, with the potential to catch illness earlier and treat it more effectively. If we can effectively harness the data we already have access to and apply it to our greatest challenges, we will make incredible progress toward our ultimate goal of a healthier world.

—
Tyson is chairman and CEO of Kaiser Permanente

Empower girls with education

BY QUEEN RANIA

The right to education is still inexplicably and unjustly denied to millions of children who need it the most. In my region, protracted conflicts have uprooted children and disrupted their schooling for far too long. As is often the case, it is girls who pay the highest toll—too many forced to swap homework for housework or, worse, school uniforms for bridal gowns. The alchemic power of education is well documented. When girls are educated, they are empowered to make decisions that improve their lives and those of their families. They become resilient and more likely to excel later in life. We all have a role to play. So my challenge to each of you is: What will you do?

—
Rania al-Abdullah is the Queen of Jordan



Fight for sustainability now—before it's too late

BY AL GORE

The climate crisis is now a full-blown global emergency. The severity and frequency of climate-related disasters are accelerating—as is the risk of catastrophic disruptions to essential components of the earth's ecological balance that have enabled the flourishing of human civilization for the last 10 millennia: the water cycle, the pattern of wind and ocean currents, sea levels, the web of biodi-

versity, the habitability of significant populated areas and much more. Fortunately, we have the tools and technologies to solve the crisis. The world is in the early stages of a global “sustainability revolution”—based in part on our new-found ability to achieve hyperefficiency in the use of energy and materials, the emergence of abundant and cost-effective renewable energy generation and storage, electric vehicles, sustainable agriculture and forestry techniques, a circular economy that reuses waste streams as raw materials, and other exciting advances. New policies are needed to quickly manage a transition from the destructive approaches of the past to the sustainable approaches that are now available. There's hope: visionary nations, businesses and investors—and even more regional and local governments—are pioneering new and promising policies. Time is running out. A rising generation around the world is demanding change and leading the sustainability revolution. We must respond to this calling and act like our world depends on it, because it does.

—
Gore, the 45th Vice President of the United States, is founder and chairman of the Climate Reality Project



Providing Solutions for a **CHANGING WORLD**

Sompo—Japan's traditional insurance provider—is transforming into a global force for innovation, advanced technology, health and well-being.



A CHANGING WORLD creates both risks and opportunities. As we enter what's being called the Fourth Industrial Revolution, advanced technologies, unprecedented innovation and globalization are unleashing a period of disruption that's altering our work, our lives and the planet.

This week, business and political leaders will gather for the

*The Sompo Japan Head Office Building,
Shinjuku district, Tokyo*

World Economic Forum in Davos, Switzerland, where they will witness a world in two camps: one that is resisting these seismic changes, and one that is embracing transformation and the potential to design and build a safer, healthier, more just and more sustainable planet.

One company that is choosing to embrace that change is Sompo. Established in 1888 as Japan's first fire-insurance company, Sompo has always understood risks and

opportunities. From its earliest days, the firm began branching out into other forms of insurance, and by the mid-20th century it was expanding across the world. In recent years, Sompo Group has grown into a \$34 billion conglomerate, employing more than 80,000 people in 30 countries on six continents. From its foundation of property and casualty insurance, Sompo has steadily invested in, acquired and founded life insurance, nursing care and health care and other businesses in Japan and overseas.

Striving for new frontiers is in Sompo's DNA. Under president and group chief executive officer Kengo Sakurada, the company has embarked on a transformation that is changing the very nature of its enterprise. "My goal is to hear people say, 'Sompo used to be an insurance company,'" Sakurada says. To achieve that goal, he is leading Sompo into new areas, such as health care, digital research and development, cybersecurity and artificial intelligence (AI). Sakurada says he sees the firm as providing a "theme park of services for the security, health and well-being of our customers by working to resolve social issues through our business operations."

One of the ways Sompo is striving to realize this vision is through the establishment of the Sompo Digital Lab. Since 2016, the company has launched labs in Tokyo, Silicon Valley and Tel Aviv. Collectively, they identify innovative start-ups and partner with them to generate new products and



**SOMPO
HOLDINGS**

services for a digitally-savvy generation.

But the labs are not concerned with technology for its own sake. They stay focused on the benefits of technology to people—whether families, millennials or elderly individuals in need of care. “Sompo is taking a broader innovation approach,” says Babson College professor Thomas Davenport, a leading expert on data-driven management and an adviser to Sompo Digital Lab. “The goal for each lab is to work with AI and other technologies that can help to transform Sompo’s businesses for the digital era,” he says. The labs are contributing to the development of on-demand insurance, smart homes and devices for digital health and senior care.

Sompo has also acquired insurance companies in Europe and the Americas and has reorganized to integrate all of its commercial insurance businesses outside of Japan into a common and

highly effective platform, Sompo International.

When the reorganization is completed in 2020 to include the company’s consumer businesses, Sompo will be well on its way “to fulfill our vision to build the first truly global integrated insurance and reinsurance business,” Sakurada says.

Sompo’s integrated global platform is where expertise and new solutions are shared across countries and continents. One prime example is “AgriSompo,” a business launched in November 2017. It provides agricultural insurance and reinsurance across Asia, Europe and the Americas with plans to expand further.

The policies protect farmers from large financial losses when droughts, floods or other disasters strike. Sompo is also developing and implementing technical solutions that help farmers manage the potential impacts of extreme weather, often linked to ongoing

climate disruption.

Three years ago, when Sompo recognized the severe shortage of qualified caregivers in Japan’s nursing care industry, the company began deploying AI, robotics and other new approaches to augment the work of caregivers and deliver quality patient care. Sompo is also using its resources to mitigate dementia, which affects about 50 million people globally, a number that will double in the next 20 years.

Caring for our elders involves recognizing the importance of experience, as well as celebrating and supporting the activities and people that hold us together as a global community. The Seiji Togo Memorial Sompo Japan Nipponkoa Museum of Art in Tokyo embodies this vision, featuring works by Gauguin, Cézanne and Van Gogh. They serve as a reminder that no matter how much we transform the world, companies must never lose sight of their social purpose and what it means to be human. ●

Artificial Intelligence at Sompo

BUSINESSES ACROSS THE GLOBE are discovering the transformative power of artificial intelligence (AI). Sompo, one of the leading insurance holding companies in Japan, recognized early on that AI would play a critical role in its data-intensive industry, so it has been experimenting with a variety of advanced AI technologies since 2015. It has already deployed AI in some areas, where it is delivering considerable value.

Among Sompo’s AI endeavors are experiments that use automated machine learning to predict the onset of heart disease and disorders such as dementia. The company is also working on improving data-science productivity with automated machine learning; automating threat detection in cybersecurity; applying deep-learning algorithms for image-based cost assessment in automobile collision repair; and exploring applications for nursing-home care and patient safety.

Several AI-based systems already in operation



include those for underwriting credit insurance, and applying natural language processing to customer interaction in call centers. AI is proving powerful in Sompo’s business operations, even where skilled employees engage. The company has further established a Data Science Bootcamp to provide employee training in big data and AI—ensuring that the human talent at the company’s heart is poised for success in the AI era.



SOMPO HOLDINGS

SOMPO HOLDINGS is looking to create a range of services that work together like the attractions at a theme park, to encourage the customer to return to experience it many times.

SOMPO HOLDINGS is creating better services for the security, health and wellbeing of customers in insurance, nursing care and related businesses. Working together with you, we can help you live your best life and business.

Creating More



SAMPO INSURANCE

For more details, go to
www2.sampo-hd.com/creating_more/



THE TRUTH ABOUT ROBOTS

Artificial intelligence is powerful—and misunderstood. What we need to know to protect workers

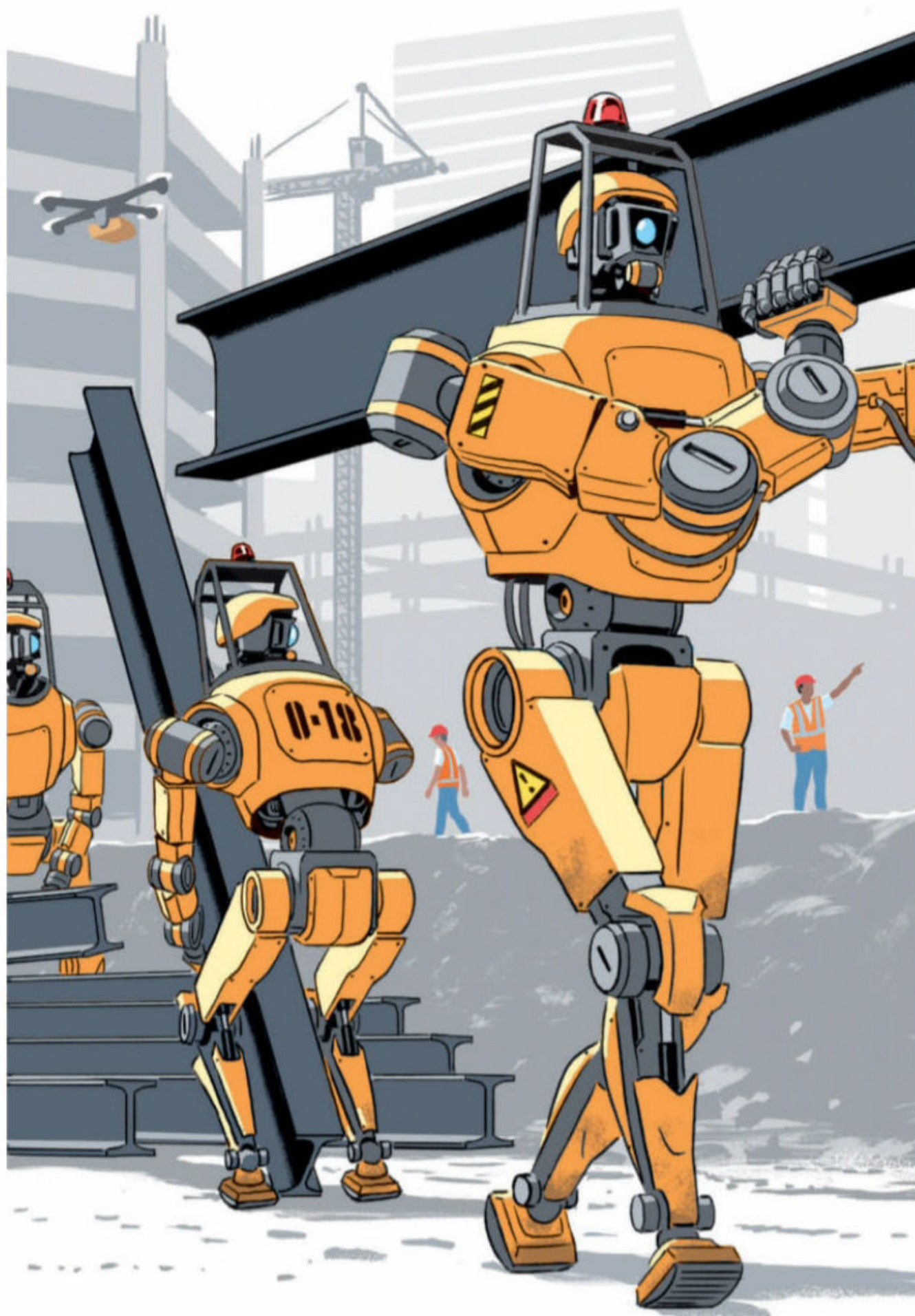
▶ IN 2015, A MAN NAMED NIGEL Richards won the title of French-language Scrabble World Champion. This was especially noteworthy because Richards does not speak French. What the New Zealander had done was memorize each of the 386,000 words in the entire French Scrabble dictionary, in the space of just nine weeks.

Richards' impressive feat is a useful metaphor for how artificial intelligence works—real AI, not the paranoid fantasies that some self-appointed “futurists” like to warn us about. Just as Richards committed vast troves of words to memory in order to master the domain of the Scrabble board, state-of-the-art AI—or deep learning—takes in massive amounts of data from a single domain and automatically learns from the data to make specific decisions within that domain. Deep learning can automatically optimize human-given goals—called “objective functions”—with unlimited memory and superhuman accuracy.

While limited in scope, deep learning is usable by everyone and powerful within a certain domain. It can help Amazon maximize profit from recommendations or Facebook maximize minutes spent by users in its app, just as it can help banks minimize loan-default rates or an airport camera determine if a terrorist has queued up for boarding.

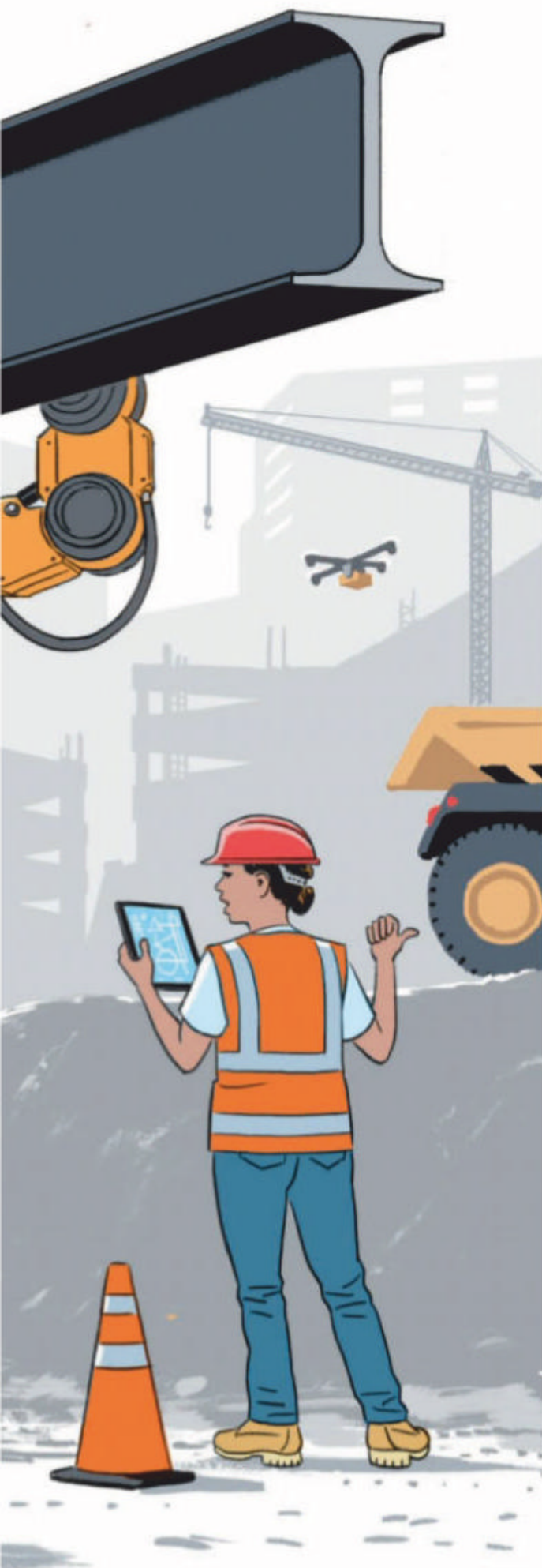
The potential applications for AI are extremely exciting. Autonomous vehicles, for example, will dramatically reduce cost and improve safety and efficiency. But the rise of AI also brings many challenges, and it's worth taking time to sort between the genuine risks of this coming technological revolution and the misunderstandings and hype that sometimes surround the topic.

First, let's talk about job displacement. Because AI can outperform humans at routine tasks—provided the task



T S

By Kai-Fu Lee



is in one domain with a lot of data—it is technically capable of displacing hundreds of millions of white and blue collar jobs in the next 15 years or so.

But not every job will be replaced by AI. In fact, four types of jobs are not at risk at all. First, there are creative jobs. AI needs to be given a goal to optimize. It cannot invent, like scientists, novelists and artists can. Second, the complex, strategic jobs—executives, diplomats, economists—go well beyond the AI limitation of single-domain and Big Data. Then there are the as-yet-unknown jobs that will be created by AI.

Are you worried that these three types of jobs won't employ as many people as AI will displace? Not to worry, as the fourth type is much larger: empathetic and compassionate jobs, such as teachers, nannies and doctors. These jobs require compassion, trust and empathy—which AI does not have. And even if AI tried to fake it, nobody would want a chatbot telling them they have cancer, or a robot to babysit their children.

So there will still be jobs in the age of AI. The key then must be retraining the workforce so people can do them. This must be the responsibility not just of the government, which can provide subsidies, but also of corporations and AI's ultra-wealthy beneficiaries.

AS WELL AS JOB DISPLACEMENT, AI has the potential to multiply inequality—both between the ultra-wealthy and the displaced workers and also among countries. In contrast with the U.S. and China, poorer and smaller countries will be unable to reap the economic rewards that will come with AI and less well placed to mitigate job displacement.

The technology also poses serious challenges in terms of security; the consequences of hacking into AI-controlled systems could be severe—imagine if autonomous vehicles were hacked by terrorists and used as weapons.

Finally, there are the issues of privacy, exacerbated bias and manipulation. Sadly, we've already seen failures on this

front; Facebook couldn't resist the temptation to use AI technology to optimize usage and profit, at the expense of user privacy and fostering bias and division.

All of these risks require governments, businesses and technologists to work together to develop a new rule book for AI applications. What happened with Facebook is proof that self-governing regulatory systems are bound to fail. And rather than compete against one another, countries must share best practices and work together to ensure this technology is used for the good of all.

One thing we don't have to worry about is the fevered warnings of utopians and dystopians about AI making humans obsolete. The former predict we shall be “assimilated” and evolve into human cyborgs; the latter warn of world domination by robot overlords. Neither are showing

much in the way of actual intelligence about artificial intelligence.

The age of “artificial general intelligence”—or when AI will be able to perform intellectual tasks better than humans—is far in the distance. General AI requires advanced capabilities such as rea-

soning, conceptual learning, common sense, planning, creativity and even self-awareness and emotions, all of which remain beyond our scientific reach. There are no known engineering paths to evolve toward these general capabilities. And big breakthroughs will not come easily or quickly.

Think back to Nigel Richards, who defeated the Francophone world at Scrabble. He had an amazing ability to memorize data and optimally select from permutations. But if you asked him to evaluate a novel by Gustave Flaubert, he would be completely lost. So asking when AI will entirely surpass humans is a little like asking when Richards will win the Prix Goncourt, France's most prestigious literature prize. It's not entirely impossible—but it is extremely unlikely.

Lee is a venture capitalist and author of AI Superpowers: China, Silicon Valley and the New World Order

There will still be jobs in the age of AI. The key then must be retraining the workforce

▶ WHEN KLAUS SCHWAB, THE founder and executive chairman of the World Economic Forum, hosted the first summit in Davos in 1971, the global community was on the precipice of profound change. Mass poverty was endemic, computers were the size of Xerox machines, and globalization was still a theory taught to economics students.

Forty-eight years on, the world is utterly transformed. Extreme poverty has halved over five decades, roughly 2.5 billion of us now carry supercomputers in our pockets, and globalization has become the bedrock of the modern economy. But once again, we are facing a period of tumultuous change. In the coming years, the 80-year-old Schwab predicts, our planet will undergo what he calls the

**Davos summit founder Klaus Schwab
on a game plan for confronting
nationalism, inequality and
the fourth industrial revolution**

By Haley Sweetland Edwards

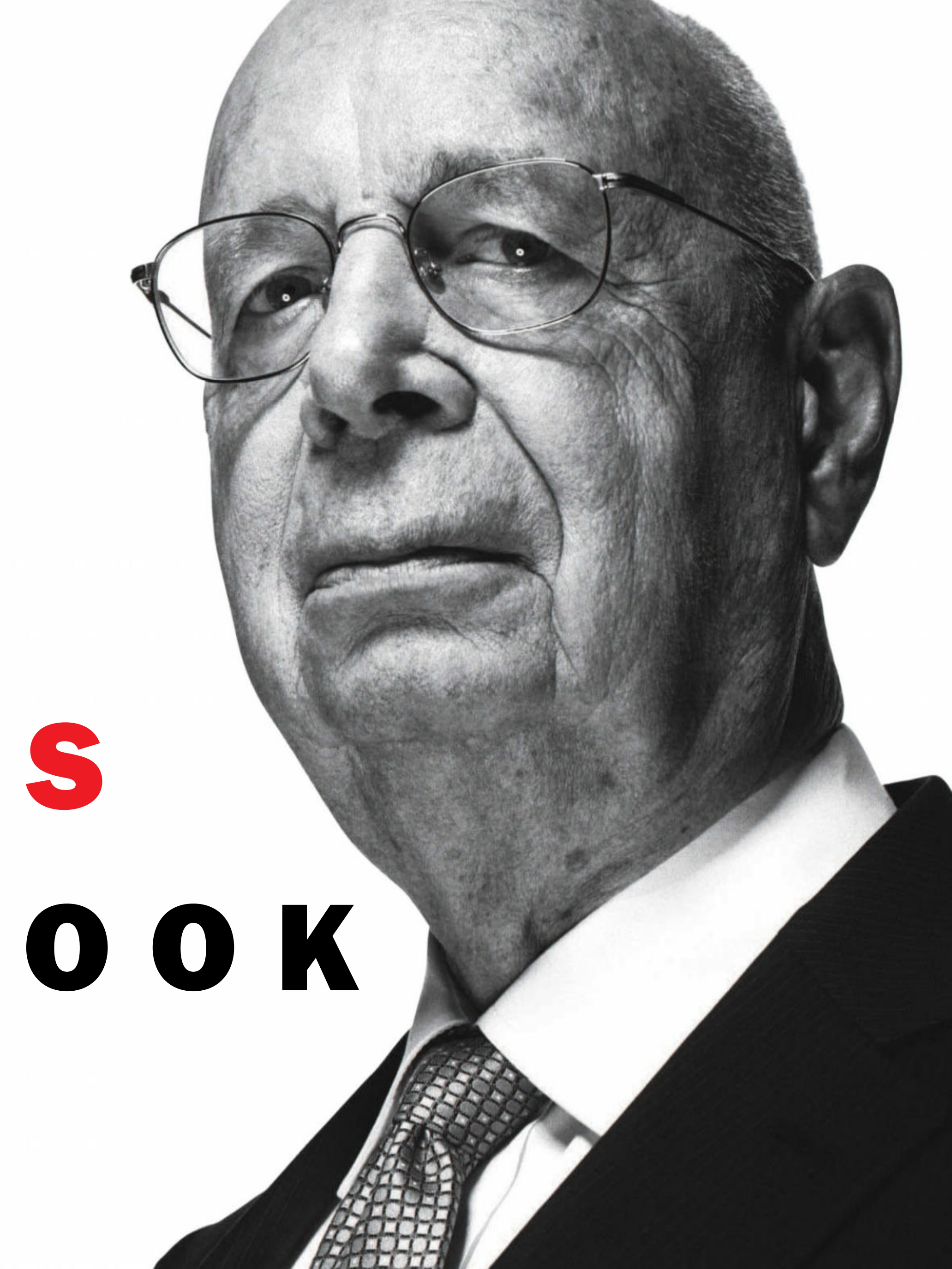
THE OPTIMIST'

fourth industrial revolution: an era of rapid innovation catalyzed by automation, artificial intelligence and other technological advances.

In December, Schwab sat down with TIME ahead of this year's WEF summit to discuss the unique suite of challenges facing the world today:

PLAYB

PHOTOGRAPH BY
MARK PECKMEZIAN
FOR TIME



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O O K

TIME: In the 1970s, you helped develop the multistakeholder concept: the idea that business must serve not only shareholders but everyone with a stake in the company. Does that idea still have merit today?

SCHWAB: Well, today I see the stakeholder concept applied on a global level. The big issues in the world, like climate change, cannot be solved by governments alone. We need new technologies, so business has a role to play. Civil society has a big role to play. We are all stakeholders in our global future. And the World Economic Forum acts as a kind of catalyst for this process.

That requires collaboration, at a time of shattered alliances, rising misinformation and bitterly divided politics. How can you look at the current state of the globe and feel hope?

We are faced with tremendous change, but change has to be shaped—and it has to be shaped by human beings, by policymakers, by the people. I would call the phase we are in innovative destruc-

tion, or perhaps destructive innovation. When you focus on the destructive part, it can make you pessimistic. What we try to do is see the innovative part.

Is the erosion of trust in traditional institutions—from democratic governments to the multilateral order—a hallmark of this period?

If there's an erosion of trust, it has to do with the imbalances we have in the system. We have trade imbalances, we have social imbalances, we have inequality. So what we have to do is to address those imbalances. Our international system was created after World War II, and since then the world has fundamentally changed. Cybersecurity, artificial intelligence, self-driving cars ... we have no global standards. So we have to create new mechanisms and institutions designed for new challenges.

How do we do that, when inequality is fueling the rise of populists and nationalists who don't believe in institutions at all?

Well, it's not just inequality driving this. I think it's a capability to cope

with change. Those who feel overwhelmed by the changes which are happening can look for simple solutions to very complex issues. And so-called populists tend to say, Look, we have the solution—which is to retreat to a good old world, which, in reality, doesn't exist anymore.

Does that explain the void in global leadership we are currently seeing?

No, it's not a void. It's a transition from a unipolar to a multipolar world. The first industrial revolution created the economic and political power of Great Britain. The second industrial revolution permitted the superiority of the United States, reinforced by the third industrial revolution: the computer age. Now what we are seeing is a struggle of who will be leader in the fourth industrial revolution. We have to recognize that even if



we have different philosophies, we are united by common interests.

Do you worry that technology, and specifically social networks, are being used to divide us and undermine those common interests?

Yes, of course. We are living not only in a multipolar and multistakeholder world, but in a multiconceptual world. And what has happened with media broadly reinforces this tendency to create our own values. I think every media organization should make sure that what they disseminate is the truth, including social media.

Who should be responsible for that?

I'm usually in favor of an independent, self-governing body. Probably "shaming and blaming" is a better weapon in this respect than a big book of regulations.

"Shaming and blaming" doesn't seem to have affected Facebook's behavior.

If you were the head of Facebook, wouldn't you come to the conclusion that you have to address those issues? Because at the end you depend on the trust of your users.

Schwab and German Chancellor Angela Merkel arrive for a plenary session at last year's WEF in Davos



But Facebook has repeatedly abused the trust of its users, allowing their data to fall into the hands of Cambridge Analytica and other shady actors. And we're not seeing a mass abandonment of Facebook.

I don't have the solution. You can argue for more laws, sure. But in the long run, if you are not able to maintain trust, the business is not sustainable. I see many people who don't use Facebook anymore.

How can we prepare ourselves for the fourth industrial revolution? Is there a need for a shift in values?

I think the fourth industrial revolution will create a world where we have less need for labor, and where production can be robotized to a large extent. So the question we need to answer is, What is the purpose of life? Up until now we defined our purpose of life by production and by consumption. Perhaps now, we move from that narrative to one of sharing and caring. You can see the first signs already. When I talk to young people, they don't dream of owning the big villa. They depend much less on consumption. It will be this generation that will force companies to follow suit.

How? By boycotting and socially conscious investing and purchasing?

Yes. Today you see already a tendency to buy products that have less sugar, for example. Next it will be buying products that do not hurt the environment, or that are not made under socially unacceptable conditions for the workforce. I think this will come.

Schwab in Geneva on Dec. 19

KLAUS SCHWAB

Age: 80

Position: Founder and executive chairman of the World Economic Forum

Hometown: Born in Ravensburg, Germany. Moved with his family to Switzerland as a boy. Resides in Cologne, Canton of Geneva, Switzerland.

Personal: "My great joy is to spend time in the Alps. For many years, I participated in the Engadin Skimarathon, a 26.2-mile cross-country ski race. Now, I still go hiking in the mountains during summer and start every day with a swim. It clears my head and gets me energized for the day."

What does the future of employment look like for this generation, as automation eliminates low-skill jobs?

At the moment, a key challenge is the reskilling and upskilling of workers. We must equip people with the means so they can earn a decent living, and we are failing to do that. But in the long term, I think the jobs of the future will require a combination of talents. One is the digital world, so coding even for first-graders. But that's not enough. You will also need human qualities. What makes us different from a robot? It's the fact that we can have feelings. A robot can maybe one day be much more intelligent than we are, but the robot cannot show love, feelings, empathy, solidarity and so on.



OCEANS ADRIFT

▶ **IT OUGHT TO BE HARD FOR**
a species that occupies
roughly 10% of the earth's land to
mess up 70% of the planet's entire
surface. Yet humans are well on
the way to wrecking the oceans.

From climate change and
melting ice caps to islands
of floating garbage, we are
increasingly fouling what was
once the perfectly, chemically,
thermally balanced womb of
all earthly life. The scope of
potential loss is staggering:
The oceans are the world's
largest ecosystem, home to 80%
of the planet's biodiversity, and
account for more than 97% of its
water. They produce nearly half
the planet's oxygen too. Lose the
oceans and we lose everything.

Here are five ways the
oceans are suffering, with
dire impacts for land dwellers,
that need solutions.

—Jennifer Duggan



◀ **BAD CATCH**
Almost 80% of the world's marine fish stocks are now fully exploited, overexploited or depleted, according to the U.N. Food and Agriculture Organization. The implications for food security and global economies are enormous.

PHOTOGRAPH BY PAUL NICKLEN



▲ BOUNDARY ISSUES

Rising temperatures are remaking the map of the oceans. As polar ice retreats, the Northwest Passage could become an economically viable sea route. But consequences for pristine Arctic regions could be devastating. Increased shipping traffic could lead to more black carbon deposits on ice and snow, and higher risk of fuel leakage or spills. There's also a risk of geopolitical tensions as nations race for control of faster shipping routes and untapped resources.





HEATING UP

The world's oceans are warming at a rate faster than previously estimated, according to a study in *Science* released in early January. Melting Arctic ice pours an estimated 14,000 tons of water every second into the earth's oceans, making it the

biggest contributor to rising seas. Antarctic warming is also a contributor. This iceberg calved off Antarctica, adding to rising sea levels as soon as it slipped off the land mass and began to float. Overall, according to NASA, seas are rising by around 3 mm each year.

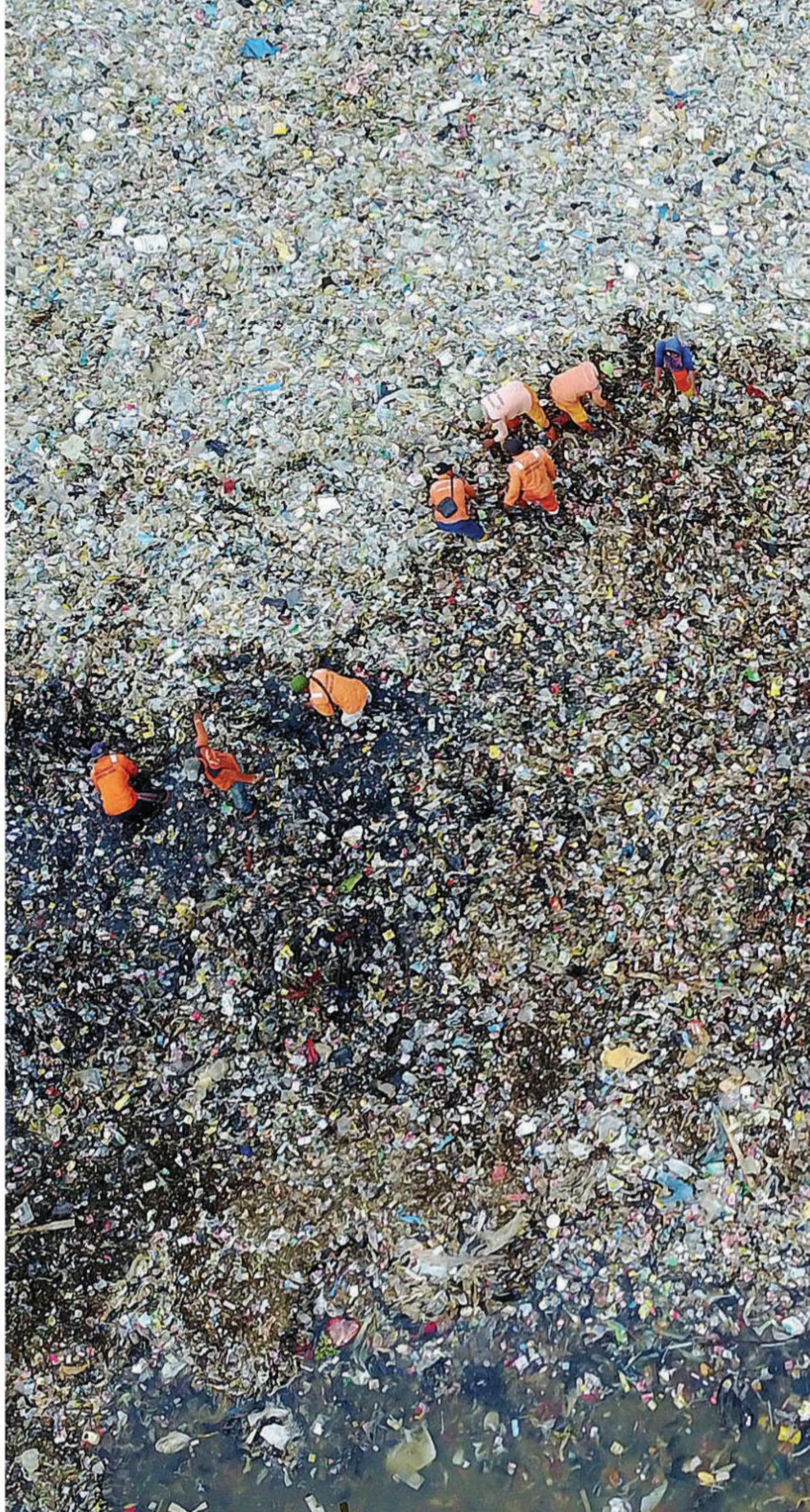
WASTING AWAY

Ocean pollution—including vast amounts of plastic waste that cannot break down—is particularly hazardous for marine wildlife. The image above shows the plastic trash found in the stomach of a single sea turtle found dead on the Pacific Coast.

▶ **TRASH AFLOAT**

It is estimated that 1.15 million to 2.41 million tons of plastic enters the ocean each year from rivers. Garbage accumulates in five different patches in the world's oceans. The largest, in the Pacific, lies between Hawaii and California and covers an estimated surface area of 1.6 million sq km, twice the size of Texas or three times the size of France.

JEFRI TARIGAN — XINHUA/EYEVINE/REDUX





YuMi® the world's first truly collaborative robot

In factories all around the world, people are working with a completely different type of co-worker: a dual-arm collaborative robot from ABB called YuMi®.

YuMi® is the world's first truly collaborative dual-arm robot, designed to work safely alongside people, even on shared tasks, without fences or barriers. This means that it is becoming possible for factories to automate processes that have never been automated before – for example, having people and robots work together to assemble small electronics. This new way of working allows people to contribute their unique adaptability to change and problem solving, while the robots do what they do best: provide endless endurance for precise tasks. The robots take on jobs that are dull or pose injury risks from poor ergonomics or repetitive motion. This frees workers to address more rewarding cognitive challenges, such as working with the latest digital technologies and virtual reality, and with emerging ones such as artificial intelligence.

For manufacturers, the powerful collaboration between people and robots provides flexibility for today's demanding markets. In industries that range from automotive to food to personal electronics, goods can be mass-customized with much greater variety, in lots as small as one. Many factories designed to produce large volumes of the same goods for a long time struggle to keep up with the pace of today's markets or to efficiently launch new products fast enough for consumers' voracious appetite for "the latest and the greatest."

In a world where production is becoming more and more complex, digital technologies enable manufacturers to unlock hidden value. As a pioneering technology leader in digital industries, ABB drives this transformation with innovations that leverage data and smart automation to make enterprise more flexible and efficient, while at the same time lowering costs.

In Heidelberg, Germany, for example, ABB runs one of the world's most advanced factories using robotics, connectivity and digitalization to increase productivity and flexibility. ABB's YuMi® robot is also a breakthrough in terms of its ease of use. YuMi® is programmed by demonstration, where a person initially guides the robot's two arms and grippers through the required series of movements to perform a task. These movements are then recorded on an intuitive smart tablet and played back to operate the robot. In the past, robot experts would have needed to program each point-to-point motion through specialized software. By simplifying automation processes, more factory workers are able to participate in the "factory of the future" today. This is an important benefit for many small- and medium-size businesses that stand to benefit from robotics' flexibility and scalability for growth.

In the past robots have mostly helped large-scale manufacturers like automakers, and required safety barriers and dedicated programming experts. Today, robots are helping many smaller businesses and new robot users thrive and grow, while providing people with more interesting and rewarding roles.





Let's write the future
of working with robots
that can collaborate.

ABB supports industries for the future of work through innovative automation solutions enabled by ABB Ability™. Collaborative robots, smart factories, and the development of autonomous systems elevate how we work today, and how we will work tomorrow. Let's write the future. Together. [abb.com](https://www.abb.com)





THE MALE PILL

The Pill may not be just for women soon. The U.S. National Institutes of Health is set to test male-hormone-halting gel that's rubbed onto the back and shoulders.



POSTDEATH PERFORMANCE CONTRACTS

A holographic image of Roy Orbison, who died in 1988, toured in 2018. Amy Winehouse (died 2011) and Frank Zappa (1993) will hit the circuit as virtual entertainers in 2019. Performers' contracts will more routinely include language covering who controls and profits from posthumous performances.



VIDEO-GAME SUPER BOWLS

The business of e-sports—competitive video gaming—is poised to exceed \$1 billion. The Overwatch League, formed in 2017, sold franchises for \$20 million apiece to Comcast and other corporations, per ESPN; expansion teams may cost \$30 million to \$60 million.



A CURE FOR BALDNESS

Japanese researchers in 2016 said they had developed a way to use stem cells to regenerate hair follicles, with human clinical trials possible in 2019. RIKEN, Japan's largest research institute, is working with two companies in hopes of offering a treatment by 2020.

WASTEWATER ON TAP

El Paso, Texas, will launch a system that treats sewage water and channels it directly to residential drinking-water taps. The city has already cut individual water use by over 40% since 1985 through initiatives like paying residents to abandon green lawns.



RETURN OF THE WOOLLY MAMMOTH

A Harvard team is using gene editing to resurrect the woolly mammoth and passenger pigeon by inserting DNA from the extinct species into living animal-cell cultures.

FUTURE FACTS

Hologram rock stars. Extraterrestrial data farms. The coming decades promise startling innovations—and new problems too

By Don Steinberg



ENDANGERED COFFEE

Rising temperatures, bringing drought and disease and killing pollinating insects, are forecast to make nearly half the globe's land used to grow high-quality coffee beans unproductive by 2050.



DATA SERVERS IN SPACE

- Cloud Constellation's SpaceBelt plans to host off-planet data storage by the early 2020s in a constellation of low-earth-orbit satellites. Space storage could keep highly sensitive data far away from the Internet—and potentially from earthly regulators.

GREEN FUNERALS

By one estimate, a traditional 10-acre cemetery contains enough buried wood to build 40 homes and enough embalming fluid to fill a swimming pool. Eco-friendly "conservation burials," on the rise in developed countries, feature biodegradable coffins and formaldehyde-free embalming.



ROBOT BORDELLOS

Houston officials have been politicking to stop a brothel staffed by humanoid sex robots from opening. Robo-bordellos are open for business in Barcelona, Turin, Moscow and Toronto.

GLOBAL SAND SHORTAGES

Sand, used in concrete and glass and as a barrier against rising seas, is one of the world's most overexploited natural resources. Shortages have already given rise to piracy that destroys islands.



HALF THE WORLD WILL BE 'WATER STRESSED'

The U.N.'s 2018 World Water Development Report estimates that 3.6 billion people (almost half the global population) live in areas that are potentially water-scarce at least one month of the year.



EAT THE BEETLES

Studies say the market for edible bugs will be worth up to \$1.2 billion by 2023. Around 2 billion people already eat crickets, mealworms and other insects.

THE LAST WEASEL IN NEW ZEALAND

To save its iconic kiwi birds and other species, New Zealand plans to kill every nonnative rat, weasel, possum, feral cat and other invasive predator on the entire 104-sq.-mi. island nation by 2050.





ECONOMY

LEVELING THE PLAYING FIELD

How to keep the next industrial revolution from becoming a winner-takes-all event

By John Lanchester

▶ FOR THE FIRST TIME IN DECADES, THE SAME TOPIC currently dominates the conversation everywhere in the world. From Shanghai to San Francisco, the top-of-mind subject is inequality. It's even worrying the winners who gather at Davos. In 2018, the World Economic Forum's Global Risks Report called it "an increasingly corrosive problem."

Although it is a tentative process, big economies have begun recovering from the financial crisis. The trouble is that the rewards of that recovery are mostly going to the people who were already rich. In the U.S., the top 0.1% of the population owns more wealth than the bottom 90%, and the ratio between a top CEO's pay and the pay of a

typical worker has grown from 30 to 1 in 1978 to 312 to 1 today. In the richest and most powerful country the world has ever seen, poor men die 15 years younger than rich men, and overall life expectancy is falling. Frustration at this state of affairs has driven voters to populist and nationalist parties in the U.S., Europe and Latin America. The upshot is that both the 2017 and 2018 reports from Davos called for "fundamental reforms to market capitalism"—a startling thing to emerge from the capitalist winners' enclosure.

Capitalism, however, has been here before. One of its great historic strengths has been its ability to reform and change shape as social needs and democratic demands shift. In the late 19th century, parties of the right in Europe brought in a wave of progressive reforms to suit the times, from expanded union rights to the social insurance that began the creation of the modern welfare state. In these cases, there was a pragmatic and also a moral imperative at work to improve the lives of ordinary citizens.

Yet today, politicians and thinkers have largely stopped making the case for capitalism as a moral good. What we have instead are abstract ideas about the supremacy of markets. At the same time, the surges in inequality seen in country after country are corroding the moral principles that underpin capitalism. The ethical basis for capitalism

must be that it offers better life chances for a majority of citizens. If it is failing to do that, what is the justification for its dominance as an economic system? Little wonder that a Gallup poll found only 45% of U.S. young adults view capitalism positively, a 12-point decline in just two years.

This landscape is both volatile and stagnant: volatile because voters are anxious, restless, insecure; stagnant because nobody in power is offering real answers or real change. To this picture we now must add the next big societal phenomenon coming down the pipe, the increasing and accelerating impact of automation, machine learning and AI. The consequences of these are likely to be felt precisely on the weak points of the current economic order, where insecurity meets inequality and winner-takes-all societies collide with vanishing work and collapsing social cohesion.

IN SOME FIELDS OF WORK, the impacts of this industrial revolution are already being felt. Automation in the world of manufacturing erased around 8 million jobs in the U.S., just in the first 10 years of this century. But many more jobs could soon be done more efficiently either by or with the help of machines. The U.S. has 1.8 million truck drivers and 3.5 million cashiers. The scale of change is potentially epochal.

Artificial intelligence has the potential to alter our lives to an even greater extent. AI is best understood not as an upgrade of our existing structures but as a general-purpose technology (GPT), like electricity or the steam engine. GPTs are transformative in their social and economic impacts, reaching into every aspect of life. “Some people believe that it’s going to be on the scale of the Industrial Revolution,” says Demis Hassabis, the AI expert who co-founded the pioneering machine-learning company DeepMind. “Other people believe it’s going to be the class of its own above that.”

The crucial factor for managing these changes is time. In 1900, the proportion of the U.S. population who worked

in agriculture was 38% and the proportion who worked in factories was 25%. Today only 1.5% of the population works in agriculture and 7.9% in factories. So there’s been a catastrophe of unemployment? Absolutely not: the losses were more than made up for by growth in other sectors of the economy, which went from providing 24 million jobs in 1900 to some 150 million today. Most of the new varieties of work simply didn’t exist at the dawn of the last century. Given time, we know from experience that a society can manage this kind of transition. The question is, do we have that time?

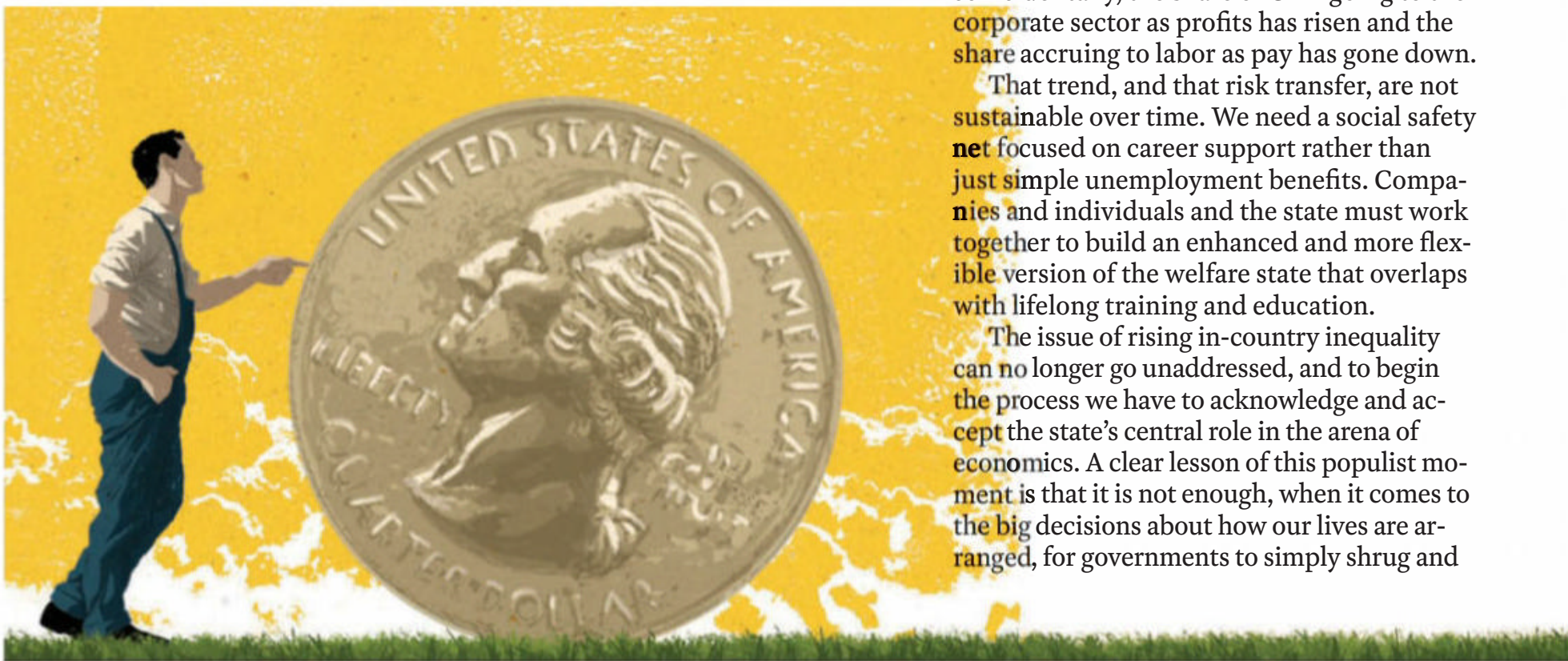
A girl born in the U.K. today has a better chance of living to be 100 years old than a woman of 80. Think about what the working life will be of a person who can expect to live for a full century. What can we say about the likely span of her economic and political life? The only absolute certainty is that it will involve change. It will not be static. It will not involve doing the same thing in the same place over and over again. Unless we are all prepared for change, we are not prepared for the coming world of work.

At the individual level, the prescription for what we should do to prepare for this new landscape is relatively straightforward. For a life of multiple careers and skills, people need an education that prepares them for a lifelong process of training and retraining. They will need, more than anything else, to learn how to learn. Flexibility and resilience will be crucial. It won’t be easy, but at least we can see it clearly. At the level of society it is harder. Let’s be honest: this is a vision of insecurity, projected across a working life. It is a clear principle of economic and political history—one we’re relearning today—that humans hate insecurity.

What we need is to rethink the relationship between the individual, the corporate sector and the state. In recent decades, we have seen a “great risk shift”—to borrow the term of the Yale social scientist Jacob Hacker. Individuals in temporary, insecure, giglike employment are taking on risks that used to belong to the corporate sector. Not coincidentally, the share of GDP going to the corporate sector as profits has risen and the share accruing to labor as pay has gone down.

That trend, and that risk transfer, are not sustainable over time. We need a social safety **net** focused on career support rather than just simple unemployment benefits. Companies and individuals and the state must work together to build an enhanced and more flexible version of the welfare state that overlaps with lifelong training and education.

The issue of rising in-country inequality can no longer go unaddressed, and to begin the process we have to acknowledge and accept the state’s central role in the arena of economics. A clear lesson of this populist moment is that it is not enough, when it comes to the big decisions about how our lives are arranged, for governments to simply shrug and



blame forces outside their control. Inequality is not something the market is going to fix by itself. Governments need to address it through the tax system, together with companies and individuals.

The architects of this new industrial revolution, by the way, agree with this proposition. Yann LeCun, the chief AI scientist at Facebook and one of the pioneers of deep learning, said recently that every economist he has spoken to agrees that governments must take measures to compensate for rising inequality brought about by technology. "All of them believe this has to do with fiscal policy in the form of taxing, and wealth and income distribution."

We also need a functioning marketplace. The collapse of U.S. government action in the area of anti-trust and competition law has led to a damaging concentration across most industries—from cable TV to airlines, online advertising and farming. While a new generation of robber barons controls huge sections of the U.S. economy, corporate profits surge, wages stagnate, and fewer ordinary workers have reason to believe in the capitalist system.

IF WE CONTINUE on our current path, the next industrial revolution risks ending up as a winner-takes-all event: a few crucial breakthroughs in a few data-intensive areas, which scale throughout the world. Imagine that engineers at a single company solve most of the outstanding problems with entirely self-driving cars and brings them to market within a couple of years. With that invention, millions and millions of jobs disappear, and in their stead, one company's share price goes stratospheric. That thought experiment is too neat for the real world, but the trends it describes are not.

The final component of what we do next concerns not what we do but what they do—"they" meaning the elites who have profited most from the trends of recent decades. Quite simply, those elites have to pay their taxes. They have to stop using offshore havens and accounting tricks to hide their wealth from the societies in which they live and from which they make their profits. Instead of founding think tanks and gorging on discussions about improving distant lives, they have to attend to the lives around them in the places they actually live.

A message to the 1%

If elites want to fix the world's problems, they can start by looking in the mirror

By Anand Giridharadas

Dear Davos delegates,

Once again, you plutocrats are gathering above the rest of us, convinced you hold the key to solving problems you've caused. You meet to celebrate your plutocrat religion, Win-win-ism, which teaches that what's best for the winners of our age is best for all. But we don't believe you anymore. Facebook's Mark Zuckerberg used to be a synonym for optimism. Now he's a catastrophic joke—a boy-man who pledged to create community while destroying democracy, who said he'd end all disease even as his company became a plague. He may merely be an exaggeration of many of you.

You enabled the

nationalism that threatens our societies. You stiffed so many of us. You fought for rules that let you steal the future from our children. You pushed for monopolies and "double Dutch with an Irish sandwich" tax maneuvers and austerity and deregulation. People got angry, and some of them voted for hell. And who benefited? You again. Because instead of following their anger up to the summit where you gather, the enraged were goaded, sometimes by your fellow plutocrats, into punching downward and turning on the most vulnerable.

Hearing this, you may be tempted to do what your type loves to do: solutionizeify. But the hunt for

answers to the present mess is not yours to lead. Your moral duty now is to refrain from thwarting those who are working to bury this gilded age and usher in vital reforms. It will be tough on you, though you can afford it: higher taxes on the very rich; stronger protections for workers; new deals, green and otherwise; vigorous antitrust and financial regulation. As the reformers craft societies in which all can flourish, your task is simple: stay out of their way.

*Giridharadas is author of **Winners Take All: The Elite Charade of Changing the World***



A new emphasis on the role of the nation-state; a new partnership between the state and the private sector and the individual; new action on lifelong learning and training; higher and fairer taxes; less security for big corporations: these things shouldn't be unthinkable. It is strange and sad that the least likely thing on my wish list is the idea that elites will change their behavior.

But elites may have to change if they don't want change to be imposed on them. This coming wave of technological transformation has the potential to be the most serious challenge modern capitalism has faced. For people who don't have the chance to change and adapt and reskill, a pitiless world ruled by algorithms and machine learning, in which they have no utility, no relevant skills and no security, could look completely unlivable. Facing that prospect, the populations of the developed world may do things that make the current populist moment look polite, low-key and lawful.

*Lanchester is the author of **IOU: Why Everyone Owes Everyone and No One Can Pay** and **How to Speak Money**. His latest novel is **The Wall***



BASIMA ABDULRAHMAN

Sustainable architect, Iraq

Basima Abdulrahman was studying at Auburn University in Alabama when ISIS took over swaths of her native Iraq in 2014. As the Iraqi army, backed by a U.S.-led coalition, fought the militants, dozens of towns, including much of Mosul, Iraq's second largest city, were destroyed.

When Abdulrahman, 32, returned home after finishing her master's in structural engineering, she saw a silver lining in the rubble of her beloved country. "When we rebuild, we can make sure we are using the right materials—efficient in terms of water and energy consumption," she says. "There is an opportunity because we have so much rebuilding to do."

In 2017, she founded KESK, Iraq's first initiative dedicated to green building, offering design and consulting services. Creating greener structures means combining the latest energy-efficient technologies and materials with Iraq's traditional building methods.

"Indigenous practices, like building blocks made of clay, are better for the environment than cement," she says, adding that the dome-shaped homes popular in some parts of Iraq help airflow and reduce

EMMANUEL JAL

Musician and actor, South Sudan

A child soldier turned hip-hop sensation, Emmanuel Jal always knew that his remarkable tale of survival would someday serve a larger purpose. He just didn't know what it was.

Now, after six albums, a TED talk, an award-winning biography and a starring role opposite Reese Witherspoon in *The Good Lie*, Jal, 39, appreciates the power of his story: a South Sudanese orphan forced to fight in a war he didn't understand who



M A K I C H

Eight young leaders on their visions for the decade ahead, from

energy consumption.

Abdulrahman wants the country to do its part to combat global warming, but its shortages of electricity and water make efficient building even more important. Erbil, where Abdulrahman lives, suffers hours of power cuts every day, and water shortages were so bad in other parts of the country over the summer that the government halted water-intensive rice farming.

The biggest challenge, she says, is a lack of awareness of sustainable design and construction in Iraq. Most people are unwilling to consider extra building costs despite the promise of long-term savings.

"They don't think about it as a lifetime investment," she says. "Because of centuries of conflict, they feel something could happen at any time and they would have to leave."

Despite that, Abdulrahman has a clear vision for the next decade: building the first sustainable city in Iraq. "That is my ultimate goal."

—REBECCA COLLARD

RIZKY ASHAR MURDIONO

Youth activist, Indonesia

Rizky Ashar Murdiono has always kept busy. Raised in a high-crime area of Surabaya, Indonesia's second largest city, Rizky, now 26, spent his childhood collecting whatever odd jobs he could to pay his school fees. He was one of few people from his neighborhood to graduate from high school.

Activism helped motivate him through the hardship. At the University of Brawijaya, Rizky doubled down on organizing, volunteering and campaigning. He created a youth-diversity alliance to promote an inclusive campus, campaigned for sexual and reproductive health with Amnesty International, taught himself English and mastered sign language to mentor students with hearing difficulties.

These days, Rizky focuses on empowering youth from similar

would go on to overcome the trauma, learn to forgive and emerge stronger.

Now living in Canada, Jal is taking that reconciliation message global, teaching through his music and his advocacy that peace is something that starts from within. “A traumatized person acts on instinct; he can’t plan for the future,” he says. “But when you eradicate the bitterness and find your purpose, you can manifest big things in life.”

To encourage others to find forgiveness and move toward inner—and outer—peace, Jal has supplemented his musical messaging with a series of workshops on self-awareness, meditation and inner strength. To expand that reach worldwide,

he’s building an app that uses an African-inflected approach to meditation while promoting positive habits.

Recognizing that education is one of the building blocks of self-awareness, Jal is also returning to his roots in South Sudan. He wants to rebuild the school he helped establish in the town of Leer in 2010, before it was destroyed by another outbreak of war four years later. It’s pointless to start construction before there is peace, he says, but his music—popular across the country—is laying the groundwork.

“The fact that those kids see me doing my things, it inspires them. They say, ‘This guy is one of us, and see where he is now,’” he says. “I am just here to keep hope alive that tomorrow will get better.” —Aryn Baker

N G

ending nuclear threats to fixing inequality and the environment

A N G E



backgrounds. “Living peacefully is impossible when people have no opportunities,” he says. He just started a new job as a program associate for youth engagement at the U.N. Population Fund, where he rallies other young activists around the U.N.’s Sustainable Development Goals.

He’s also launching a project with

2030 Youth Force Indonesia, a network he co-founded in 2016. The new initiative, called Generasi Baik (Good Generation), will deploy young urban professionals to remote villages to work on economic development. The pilot is set to begin next March with three college graduates from Indonesian cities jetting off to Borneo to work with two local college graduates on environmental issues. Rizky hopes the project will address the disparities between rural and urban areas in Indonesia, which has the sixth worst inequality of wealth in the world, according to Oxfam.

“Peace is not only about conflict, it’s also about financial security and the opportunity for prosperity,” he says. In the future, he plans to get his graduate degree in development and continue working to empower poor and marginalized youth. “I want to help other youth understand that no matter their socioeconomic background, they have potential.” —Laignee Barron

AMELIA TELFORD

Climate campaigner, Australia

Growing up in a coastal area of New South Wales, Australia, Amelia Telford was taught by her parents to respect the land and the people living on it. That early love of nature helped lead Telford, now 24, to her role as national director of SEED, an organization supporting climate activism among indigenous young people. “It’s our cultural responsibility that we’ve had for tens



of thousands of years,” she says.

As a proud Bundjalung woman, Telford says her Aboriginal identity drives the work she does. She notes that rising sea levels and mining projects have devastated the livelihoods of Australia’s Aboriginal population and Torres Strait Islanders. “Our people often say if the land is sick, then so are we,” Telford says.

Telford wants SEED’s network of young indigenous people to support these local communities. High on her agenda are campaigns against fracking in Australia’s Northern Territory and the impending construction of a coal mine in Queensland.

Telford is hopeful about holding powerful companies and the government to account. “Surrounding yourself with good people that are fighting the good fight is what makes it all worthwhile for me,” she says.

—SUYIN HAYNES

SAMAIRA MEHTA

Coder and entrepreneur, U.S.

When Samaira Mehta's father taught her about coding one day, she couldn't wait to tell her friends. He had shown his daughter how she could make a computer do whatever she wanted with the right commands—but at school, no one was interested. "They thought coding was pretty boring," the 10-year-old says. "And I wanted all kids to like coding."

Samaira, a native of Silicon Valley, decided to invent something to change that. With the help of her parents, she developed two board games that teach kids about computer science: Coder-Bunnyz and CoderMindz. She's sold nearly 5,000 since the first launched in 2015, making upwards of \$160,000 in revenue. And she's become one of coding's biggest champions in the process, hosting workshops and landing speaking gigs at companies like Microsoft and Google.

"You can tell a computer to do something for you. And you can tell a computer to do something good for everyone else," she says. "It's really important for kids to learn to code because coding is starting to become a crucial part of life." It's inside our phones and TVs and satellites, she says. It's what powers drones and self-driving cars. (Plus, Samaira adds, with the right program, you could even teach a robot how to do your homework and your chores.)

When Samaira gives talks, the young woman of color often speaks about the underrepresentation of people like her in technology. That is a gap she wants to help close. "I want it to be equal, 50% women and 50% men," she says. "Girls should not be scared to try something new." And while she has spread that message at conferences and schools, Samaira has her sights on a bigger stage.

"I also want to become the President of America," Samaira says. "Being President would give me the ability to reach out to more and more kids in the world, and continue really spreading the word and the love and the mission." —*Katy Steinmetz*



BEATRICE FIHN

Disarmament activist, Sweden

Long before she accepted the 2017 Nobel Peace Prize for her work on nuclear disarmament, Beatrice Fihn learned war isn't quite like it is in the movies. In the multicultural suburb of Gothenburg, Sweden, where she grew up, many of her classmates were Serbs, Kosovans, Albanians and Bosnians fleeing the Balkan war. "I couldn't figure out who were the good guys and who were the bad guys," she says. "It was clear that conflict was messy."

For over a decade, Fihn, 36, has been trying to stop nuclear weapons' entering that mess. In 2006 she interned for a nuclear-disarmament campaign in Geneva and quickly

GWENDOLYN MYERS

Peace advocate, Liberia

When Gwendolyn Myers was born in 1990, at the height of the Liberian civil war, her mother couldn't even afford a blanket to wrap her in. The fighting killed 250,000 people and involved 15,000 child soldiers, traumatizing a generation of Liberians. When peace was finally reached in 2003, the country was in ruins.

Growing up in a period synonymous with war shaped Myers' perspective—and career. "If young people can be used to foment violence and conflict," the 28-year-old says, "the very same young people can be used to bring about peace." That informs her campaigns at Messengers of Peace Liberia, the non-profit Myers founded in 2008, to promote volunteerism and peace building among young Liberians.

The lessons of post-conflict Liberia can teach global leaders a thing or two, Myers says. Having shepherded

young people from civil war into civil society, she knows dialogue and partnership are crucial.

But the decade ahead presents new challenges for countries like Liberia. In an era of misinformation, a sudden rise in Internet access





without a corresponding rise in education could be dangerous. With just 7% of Liberians currently online, Myers says the country—and the broader developing world—must prepare for radical change. “Of course we want everyone to have access to the Internet in the digital age,” she says. “But at the same time, what exactly are they having access to?”

The distance between today and 2030 may seem like an eternity for Liberia, which started rebuilding only 15 years ago. While the country has made major strides, including electing Africa’s first female head of state in 2005, 85% of people still live in poverty and fewer than half of children finish elementary school.

Myers sees youth engagement as essential to creating an equal society, she says. “All the conflicts we are having, we wouldn’t be having if people felt their voices were heard and respected, and they knew they were given a space that was inclusive.”

—BILLY PERRIGO

became fascinated by the global power dynamics the weapons reflect and the threat they pose. In 2014, she became director of the International Campaign to Abolish Nuclear Weapons (ICAN) and spent three years persuading 122 countries to vote for a U.N. treaty banning the development, use and threat of nuclear weapons. It was approved in July 2017.

Now that the glamour and hype of the Nobel Prize—which Fihn accepted in Oslo on ICAN’s behalf—have died down, it’s back to the daily grind of campaigning. Only 19 countries have actually ratified the treaty, and 50 need to do so in order for it to come into force. Fihn wants to hit that number by the end of 2019. “There’s a lot of bureaucratic pushing to be done; getting the right committee to sign off on the right piece of paper.”

Fihn balances the bureaucracy—working out of ICAN’s Geneva headquarters—with bringing up her two children. Raised in Sweden’s flexible work culture, Fihn is honest about the juggling required—telling colleagues if she can’t do a meeting. “It’s the workplace’s responsibility to ensure that people can do a job and have a family,” she says.

No nuclear-armed states have ratified the 2017 treaty, and critics dismiss the goal of global disarmament as idealistic. But Fihn thinks world leaders will see nuclear weapons differently by 2030. “In 10 years, I think one or two nuclear-armed states will be dismantling their stockpiles,” she says, comparing the process to the U.S.’s slow destruction of its chemical-weapons stockpile. “The key is, it won’t be something governments brag about. It’ll be a weapon on its way out.”

—CIARA NUGENT

HARRY MYO LIN

Human-rights activist, Myanmar

In a country that emerged from nearly 50 years of military dictatorship only in 2010, Harry Myo Lin is a rare mediator. A Muslim from Myanmar’s Buddhist heartland of Mandalay, the 28-year-old has spent years fighting hate speech and trying to address deep grievances left from junta rule.

When riots in Rakhine state in 2012 displaced more than 140,000 people, mostly Muslims from the Rohingya minority, Harry set up a Facebook group to fact-check claims and unite activists across faiths. It attracted 10,000 people. “This was my entry to interfaith work,” he says.

In 2013, Buddhist mobs torched mosques and killed 43 people in Meiktila, a city in central Myanmar. In response, Harry co-founded an NGO, the Seagull, in 2014. Its message of interfaith dialogue wasn’t always welcome, and Harry was harassed and threatened online. “Any rumor can lead to violence,” he says.

In 2017, he left the Seagull and joined Vienna-based peace center KAICIID, working with activists to combat rising nationalism around the world. Harry became a father in August, lending new urgency to his fight. “I don’t want my daughter to face the discrimination I’m facing,” he says. Now he’s lobbying lawmakers and training grassroots activists to instill tolerance. “Everyone has our own story and our own traumas,” Harry says. “We all need to heal.” —Eli Meixler



POPULATION

2018
7.6
billion

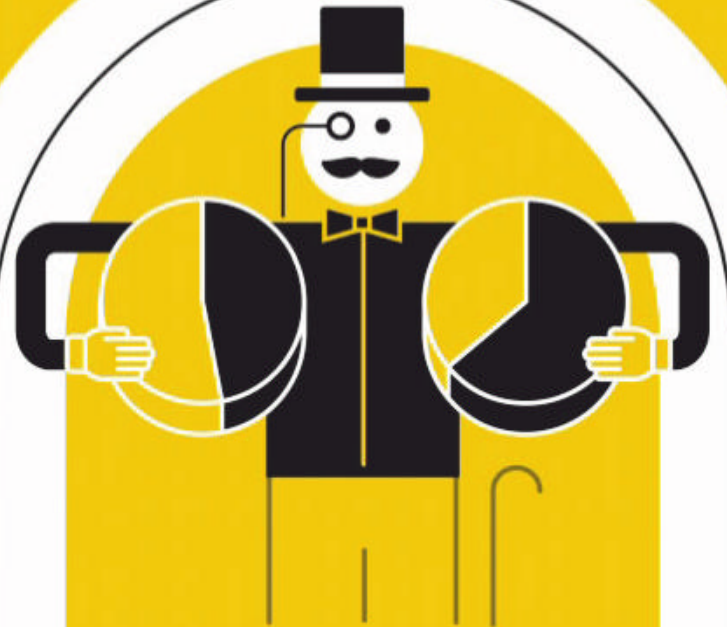
2030
8.6
billion



MOBILITY

1 in 4

passenger-miles in the U.S. are expected to be traveled in shared, self-driving vehicles



WEALTH

The richest 1% currently own
47%
of global wealth ...

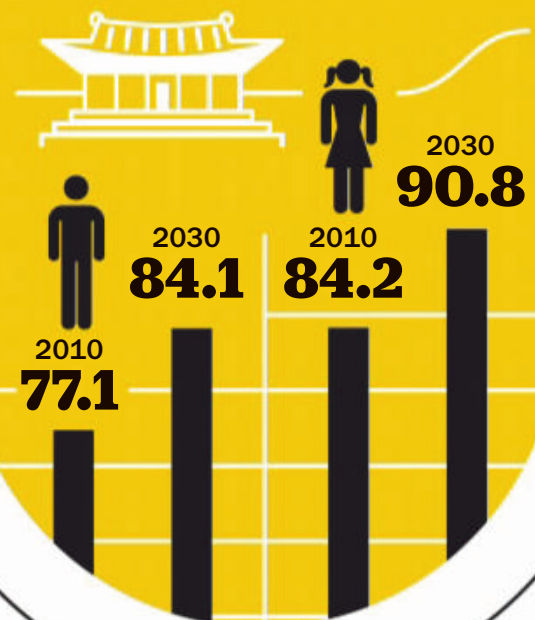
... and could own
64%
of it by 2030

THE WORLD

LIFE EXPECTANCY

Life spans are likely to increase in industrialized countries, with South Korean girls born in 2030 projected to have the longest lives

PROJECTED LIFE EXPECTANCY IN SOUTH KOREA, BY BIRTH YEAR



POVERTY

An estimated 500 million people will be earning less than \$1.90 a day

SHARE OF THE WORLD
LIVING IN EXTREME POVERTY

1990

36%

2015

10%

2030

6%

OBESITY

The obesity epidemic is expected to continue plaguing the U.S.

ADULT OBESITY RATES

2016
40%

2030
50%

AHEAD

Trends and demographics show big changes on the way

\$16
TRILLION

GLOBAL ECONOMIC
GAINS DUE TO AI

\$2
TRILLION

2018

2030

TECHNOLOGY

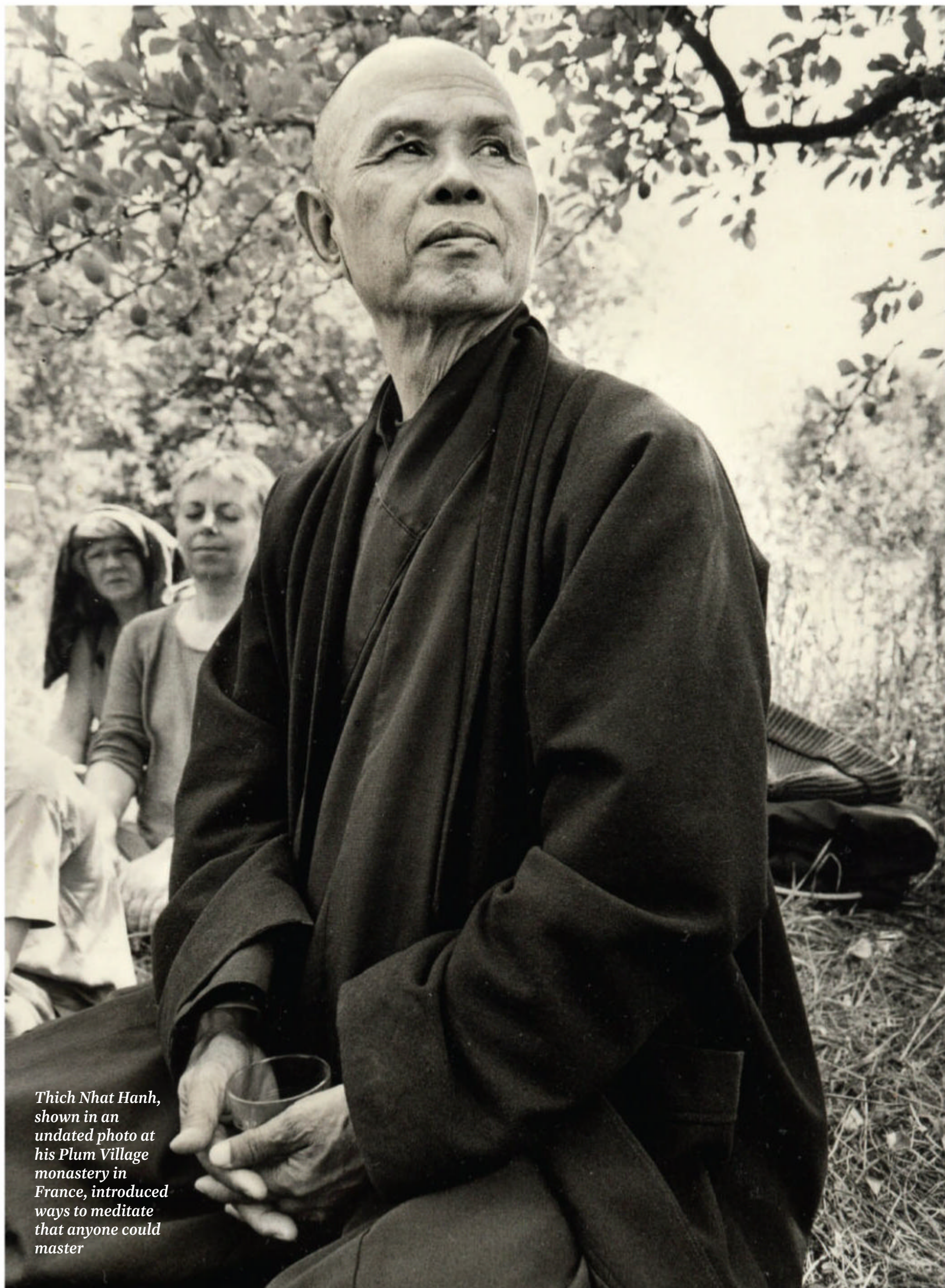
Artificial intelligence is expected to add more to the global economy than the current total economic output of China and India combined

MILITARY

If current trends continue, global annual defense spending will jump more than 50%

2030
\$2.75
TRILLION

2017
\$1.7
TRILLION



Thich Nhat Hanh, shown in an undated photo at his Plum Village monastery in France, introduced ways to meditate that anyone could master

Society

THE ART OF DYING

*The father of mindfulness returns home
to transition to the next life*

BY LIAM FITZPATRICK/HUE, VIETNAM

AT A BUDDHIST TEMPLE OUTSIDE HUE, VIETNAM's onetime capital, 92-year-old Thich Nhat Hanh has come to quietly "transition," as his disciples put it. The ailing celebrity monk—quoted by Presidents and hailed by Oprah Winfrey as "one of the most influential spiritual leaders of our times"—is refusing medication prescribed after a stroke in 2014. He lies in a villa in the grounds of the 19th century Tu Hieu Pagoda, awaiting liberation from the cyclical nature of existence.

At the gate, devotees take photos. Some have flown from Europe for a glimpse of Thay, as they call him, using the Vietnamese word for teacher. Since arriving on Oct. 28, he has made several appearances in a wheelchair, greeted by hundreds of pilgrims, though the rains and his frailty have mostly put a stop to these. On a wet afternoon in December, the blinds were drawn back so TIME could observe the monk being paid a visit by a couple of U.S. diplomats. The Zen master, unable to speak, looked as though he could breathe his last at any moment. His room is devoid of all but basic furnishings. Born Nguyen Xuan Bao, he was banished in the 1960s, when the South

Vietnamese government deemed as traitorous his refusal to condone the war on communism. He is now back in the temple where he took his vows at 16, after 40 years of exile. Framed above the bed are the words *tro ve*—"returning"—in his own brushstroke.

In the West, Nhat Hanh is sometimes called the father of mindfulness. He famously taught that we could all be bodhisattvas by finding happiness in the simple things—in mindfully peeling an orange or sipping tea. "A Buddha is someone who is enlightened, capable of loving and forgiving," he wrote in *Your True Home*, one of more than 70 books he has authored. "You know that at times you're like that. So enjoy being a Buddha."

His influence has spread globally. Christina Figueres, the executive secretary of the U.N. Framework Convention on Climate Change, said in 2016 that she could not have pulled off the Paris Agreement "if I had not been accompanied by the teachings of Thich Nhat Hanh." World Bank president Jim Yong Kim called Nhat Hanh's *Miracle of Mindfulness* his favorite book.

The monk's return to Vietnam to end his life

Society

can thus be seen as a message to his disciples. “Thay’s intention is to teach [the idea of] roots and for his students to learn they have roots in Vietnam,” says Thich Chan Phap An, the head of Nhat Hanh’s European Institute of Applied Buddhism. “Spiritually, it’s a very important decision.”

But practically, it risks reopening old wounds. Other Vietnamese exiles were infuriated by highly publicized visits Nhat Hanh made in 2005 and 2007, when he toured the country and held well-attended services that made international headlines. To his critics, these tours gave legitimacy to the ruling Communist Party by creating the impression that there was freedom of worship in Vietnam, when in fact it is subject to strict state controls.

Other spiritual leaders have suffered under the regime; Thich Quang Do, patriarch of the outlawed Unified Buddhist Church of Vietnam (UBCV), has spent many years in jail or under house arrest. In November, the U.S. Commission on International Religious Freedom (USCIRF), the government panel that monitors freedom of religion globally, issued a statement condemning his treatment by Hanoi. In this context, Vo Van Ai, a Paris-based spokesman for the UBCV, said Nhat Hanh’s prior visits to Vietnam “played into the government’s hands.”

The meaning of his return, therefore, carries great freight here in Vietnam. “[It] symbolizes that both he and the type of Buddhism he represents are fundamentally Vietnamese,” says Paul Marshall, professor of religious freedom at Baylor University in Texas. “For the government, this is both a challenge and an opportunity. If he lives out his life in peace, they can claim credit.”

NHAT HANH HAS ALWAYS GONE his own way. He became a novice against his parents’ wishes, then left a Buddhist academy because it refused to teach modern subjects. He studied science at Saigon University, edited a humanist magazine and established a commune.

After teaching Buddhism at Columbia and Princeton universities from 1961 to 1963, he returned to Vietnam to become an antiwar activist, risking his life with other volunteers to bring aid to war-torn communities. He refused to take sides, making enemies of both North and South



▲
In 1967, Martin Luther King Jr. urged the Nobel Prize committee to honor “this gentle monk from Vietnam”

Vietnam. His commune was attacked by South Vietnamese troops, and an attempt was made on his life.

In 1966, as the war escalated, he left Vietnam to tour 19 countries to call for peace. He addressed the British, Canadian and Swedish parliaments and met Pope Paul VI. This proved too much for the regime in Saigon, which viewed pacifism as tantamount to collaboration with the communists and prevented him from returning. The next time Nhat Hanh saw Vietnam was during a visit in 2005.

His reputation grew in exile. Hippies set his antiwar poetry to music. In 1967, he was nominated by Martin Luther King Jr. for the Nobel Peace Prize, and in 1969 he headed a Buddhist delegation

to the peace talks in Paris. He eventually based himself in southwest France, where he turned the Plum Village Buddhist monastery into Europe’s largest, and established eight others from Mississippi to Thailand. He oversaw the translation of his books into more than 30 languages. When Western interest in Buddhism went through a revival at the turn of the century, Nhat Hanh became one of its most influential practitioners.

Nhat Hanh taught that you don’t have to spend years on a mountaintop to benefit from Buddhist wisdom. Instead, he says, just become aware of your breath, and through that come into the present moment, where everyday activities take on a joyful, miraculous quality. If you are mindful, or fully present in the here and now, anxiety disappears and a sense of timelessness takes hold, allowing your highest qualities of kindness and compassion to emerge.

This was highly appealing to Westerners seeking spirituality but not the trappings of religion. Burned-out executives and recovering alcoholics flocked to retreats in the French countryside to listen to Nhat Hanh. An entire mindfulness movement sprang up in the wake of this dharma superstar. Among his students was the American doctor Jon Kabat-Zinn, founder of a mindfulness-based stress-reduction course that is now offered at hospitals and medical centers

TODAY, THE
MINDFULNESS THAT
NHAT HANH HELPED
PROPAGATE IS A
\$1.1 BILLION INDUSTRY



^
Nhat Hanh, center, led a silent peace walk in Los Angeles in 2005, as the Iraq War escalated

worldwide. Today, the mindfulness that Nhat Hanh did so much to propagate is a \$1.1 billion industry in the U.S., with revenues flowing from 2,450 meditation centers and thousands of books, apps and on-line courses. One survey found that 35% of employers have incorporated mindfulness into the workplace.

Nhat Hanh's approach has been commercially successful partly because it makes few demands, at least of beginners—unlike the more rigorous meditation advocated by that other great exponent of Buddhism in the West, the Dalai Lama. “Thich Nhat Hanh provides a simple version of Buddhism, but I would not say it is oversimplified,” explains Janet Gyatso, Hershey Professor of Buddhist Studies at Harvard University's Divinity School. The “basic philosophy is the same” as that of the Dalai Lama, she says. “Mindfulness and compassion.”

IN AN UNPUBLISHED INTERVIEW he gave to *TIME* in 2013, Nhat Hanh declined to say if he wanted to return home for good. Instead he praised Vietnam's youthful dissidents. “If the country is going to change, it will be thanks to this kind of courage,” he said. “We are fighting for freedom of expression.”

In fact, the situation for all rights in Vietnam is critical. During Nhat Hanh's exile, hundreds of thousands of people were sent to re-education camps or killed

by a Communist Party that, today, has absolute control. Activists are beaten, tortured and jailed. Rights of association are restricted, as is the press and judiciary. Religious freedom is heavily curtailed, and the official Buddhist Church of Vietnam is controlled by the state.

To his critics, the monk should have made greater use of his position to draw attention to these abuses. Ai, the UBCV spokesman, says Nhat Hanh was “world-famous abroad but longed to be famous in his homeland” and accuses him of cooperating with the regime in order to be given permission for his 2005 tour. Hanoi granted Nhat Hanh permission to visit that year as it sought Vietnam's removal from the USCIRF list of Countries of Particular Concern (CPC), where it kept company with North Korea, Iran and Saudi Arabia. The official communist daily *Nhan Dan* quoted Nhat Hanh as saying, “The Vietnamese want to be liberated from what the Americans call liberation for the Vietnamese,” without explaining that he had said these words decades earlier, in the entirely different context of the Vietnam War.

Washington obliged Hanoi by removing Vietnam as a CPC in 2006, to the

fury of nonconformists forced into exile. “Many [who] had looked on Thich Nhat Hanh as a living Buddha, with total respect and admiration, were deeply disappointed to see him pandering to the communist authorities,” says Ai. Many in the Vietnamese diaspora will not tolerate any compromise with Hanoi, explains Bill Hayton, associate fellow of the Asia program at London's Royal Institute of International Affairs. “In their eyes, Thich Nhat Hanh is a sellout because he is prepared to work within the limits imposed by the Communist Party.”

But Nhat Hanh was not totally silent. During his 2007 visit to Vietnam, he asked then President Nguyen Minh Triet to abolish the Religious Affairs Committee, which monitors religious groups. The Plum Village annual journal of 2008 went further and called on Vietnam to abandon communism. His followers paid a heavy price. In September 2009, police and a hired mob violently evicted hundreds of monks and nuns from a monastery that Nhat Hanh had been allowed to build at Bat Nha in southeast Vietnam, which had been attracting thousands of devotees.

Yet if Nhat Hanh courted controversy by engaging with the party, he also won the ability to gain access to the Vietnamese people—and that might have been the goal all along. The official Vietnamese Buddhist Church, says Hayton, “has no leader to compare with Thich Nhat Hanh or his ideas of mindfulness.” During Nhat Hanh's tours, he was able to champion a concise, modernized form of Buddhism very different from the religion sometimes perceived as old-fashioned and arcane. The impact is still felt by young Vietnamese today. In November, Linh Nhi, 27, traveled from Saigon to keep vigil at Tu Hieu. “If I can meet him, that's good,” she told local media. “If not, I'm still happy because I can feel his presence.”

Buddhism teaches that Nhat Hanh needs to offer his presence, and in doing so, he is embracing the roots of his suffering in the Vietnam War. He is surely aware that Hanoi will make political capital out of his homecoming. But the Zen master is evidently playing the long game—the longest game of all, in fact, which is eternity. —*With reporting by SUPRIYA BATRA/HONG KONG and BRYAN WALSH/NEW YORK* □

Chipotle's Second Act

The former CEO of Taco Bell is helping revive a chain known for fresh burritos—and food-safety lapses

By Katy Steinmetz/Newport Beach, Calif.

THE BACON QUESADILLA IS compelling, crisp and not skimpy on the cheese. I taste it on a sunny October day in Newport Beach, Calif., where Chipotle CEO Brian Niccol is in a restaurant that doubles as a test kitchen, serving up some of the new items the fast-casual chain may soon offer. Possibilities include quesadillas, nachos, hibiscus lemonade, even avocado tostadas—an item designed to be on brand for any millennial who has dreamed of eco-snorkeling in the Sea of Cortez. But Niccol has plans for the company that go well beyond jazzing up the menu.

Chipotle Mexican Grill was once the envy of entrepreneurs everywhere. Founded in 1993 by a classically trained chef, it grew from a single location in Denver into a billion-dollar burrito empire by 2006, the year the company went public. Its formula embraced the best of fast food (low prices, quick service, big portions) while positioning the company as the industry's antithesis, with fresh ingredients and a corporate ethos that emphasized integrity and sustainability. New locations popped up across the U.S. as the company's stock price soared more than 3,000% in the decade after its IPO. At the peak of 2015, 1.5 million people ate at Chipotle every day.

Then came the meltdown. In August 2015, Chipotle customers were sickened

by norovirus in California and salmonella in Minnesota. That was followed by a high-profile outbreak of *E. coli* that October that was linked to Chipotle locations in Washington State and Oregon, and then another norovirus incident in Boston. In total, about 500 people reported getting sick, and the string of food-safety issues sent the company's stock plummeting from a high of more than \$750 to under \$400. Sales slumped by nearly one-third. As the company tried to bounce back in ensuing years, more problems followed. Federal consumer-protection watchdogs launched an investigation. (The case is ongoing.) Adding to the bad press, Chipotle's then marketing chief was placed on leave after being indicted for drug possession.

Niccol, who had been running Taco Bell, took over in March 2018 to execute a turnaround. Chipotle's promise to sell burritos "with integrity" remains the central premise. "The things that make us unique, we're quadrupling down on that," he says. A new management team is also in the midst of experiments designed to lure consumers new and old, from a customer-loyalty program to beefed-up delivery options. But changes will come slowly. Niccol intends to innovate without compromising the simplicity that's been fundamental to the chain's appeal.

The larger vision, he says, is to make the company a lifestyle brand known for





CEO Brian Niccol lunches at a Chipotle near the company's new headquarters in Newport Beach, Calif.

PHOTOGRAPHS
BY SHAUGHN AND
JOHN FOR TIME

making healthful eating available to the masses. His dream is to see Chipotle mentioned not alongside industry competitors like Panera Bread but with brands like Patagonia, whose expensive fleeces signal environmental consciousness. “If that’s the company we keep,” he says, “we’ll become more and more integrated in people’s lives.”

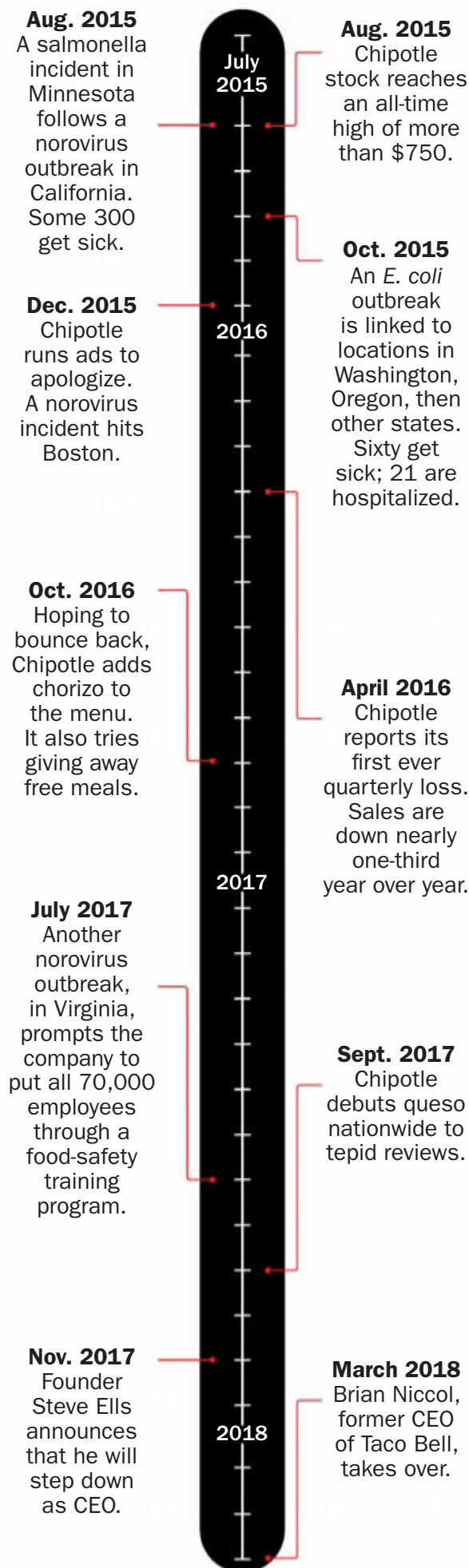
Recapturing the magic Chipotle once had won’t be easy. The memory of food scares hasn’t faded. And thanks in part to Chipotle’s early success, consumers who want a quick, relatively healthy bite have never had more alternatives. Niccol’s goal may be no less ambitious than “reshaping food” itself. But first, he has a more basic hurdle to clear: making you love Chipotle again.

CHIPOTLE’S NEW EXECUTIVE TEAM likes to describe the business as a startup, and although it is not, the new corporate headquarters in Newport Beach gives the appearance of one. Chipotle moved here from Denver after Niccol took over. While the change was convenient for the boss—Taco Bell’s HQ is in nearby Irvine—Niccol says the decision was about tapping into food culture “set on the coasts” and resetting the company culture too. “We had to relaunch,” he says. On the October morning when I visited, wires were sticking out of walls and workers perched on folding chairs. New employees were arriving for orientation, and there was a giddy buzz in the air. The conference room where I spoke with most executives was identified not by a number but by a piece of printer paper taped to the wall outside. On it was the word *SOFRITAS*, a reference to the chili-soaked tofu that was one of the few major items added to the menu before Niccol arrived.

Chipotle was founded a quarter-century ago by Steve Ells, a chef who turned out to have great intuition as an entrepreneur. At a time when megachains were fighting to offer the cheapest possible burger, Ells insisted that people wanted something else. Using traditional cooking techniques, he’d sell customizable burritos with fresh ingredients for a price closer to \$10 and assemble them right in front of customers. Chipotle’s runaway success—it grew from one store to 500 at the time of its IPO and now has 2,450—has led people like restaurant-

CHIPOTLE’S TROUBLES

The burrito empire has been plagued in recent years by food-safety issues:



industry consultant Aaron Allen to liken Ells to Henry Ford. The model proved that customers would pay more for better ingredients, a discovery that helped give rise to other fast-casual chains like Sweetgreen and Lemonade that serve up salads and grain bowls in similar fashion. “*Fresh* became the most bankable word in food service,” Allen says.

Chipotle’s dizzying rise was all the more remarkable given the things Ells didn’t do. There was no breakfast. The menu rarely changed. Instead of running national TV ads, Chipotle did things like commission Toni Morrison to write poetry for its to-go bags. Two top executives were Ells’ college buddies. “People who were doing those jobs didn’t really have any long tenure or expertise in them,” says Sara Senatore, a senior analyst with Sanford C. Bernstein. That was fine on the way up but became a liability once things went sideways.

Chipotle’s habit of preaching about its methods didn’t help either. The firm not only worked to use natural ingredients; it also produced short films that wagged a finger at anyone who engaged in factory farming. “We spent too much time talking about other people doing wrong and not enough time talking about what we were doing to change food culture,” Niccol says. New chief marketing officer Chris Brandt suggests another element: “There’s nothing like success to make you a target.”

Whatever the reason, food-safety problems at Chipotle seemed to receive outsize scrutiny compared with industry peers. While *E. coli* outbreaks are rare, norovirus is relatively common and incidents can be caused by a single sick customer or employee rather than lax safety standards. Fair or not, media coverage of the issues sent a message to consumers that Chipotle was unsafe. “It is really all about perception,” says David Tarantino, a senior analyst at Baird. “And consumers were perceiving that Chipotle was getting people sick randomly for an extended period of time.”

The company took pains to show it was serious about protocol, shutting down every restaurant one day in 2016 for a company-wide safety briefing and putting all 70,000 employees through a new training program after a July 2017 norovirus outbreak in Sterling, Va. But morale was dismal. “People felt beaten



◀ Chipotle is testing new menu items, like avocado tostadas, that may soon be served alongside burrito bowls

and downtrodden,” says chief restaurant officer Scott Boatwright, who came to Chipotle from Arby’s about a year before Niccol arrived.

In November 2017, Ells announced that he would be stepping down as CEO. (He remains chairman of the board.) Among investors, “patience was running out,” says chief financial officer Jack Hartung. The day after Chipotle announced that Niccol would take over, the stock price jumped 15%. In some quarters, the appointment also sparked fears. Taco Bell is known more for its low price points than for the freshness of its ingredients. Hartung says he received a series of texts from friends with messages like “Don’t let him change the food.”

AS COMPELLING as bacon quesadillas may be, the menu is just one piece of Niccol’s plan. The new CEO is a marketing guru, not a chef. After college he worked at Procter & Gamble, finding new ways to get people to buy big-name brands like Scope and Pringles. (Snack Stacks, anyone?) Then he moved to Yum! Brands in 2005, working his way up at Pizza Hut—where he had the foresight to realize that customers would want to order pizza online—before moving to Taco Bell. With him at Chipotle is a new crew of corporate veterans who hail from places like Starbucks, infusing the firm with a level of professionalism that many say it lacked. “When I got here, no projects ever ended,” Niccol says.

If there is one term that embodies

Chipotle’s new chapter, it may be *stage-gate*. In interviews, almost every executive mentions this method of innovating, which involves trying things out on a very small scale (one location), then a slightly larger one (seven or eight) and so on, before you even think about rolling out a change to the entire system. Along the way, you refine the hypothesis. Queso is an example, Niccol says, of why this is a must. Consumers derided the melted cheese as “gritty” when Chipotle debuted it in the fall of 2017. The company is now on its third iteration, the kind of tweaking that Niccol believes should have happened long before it debuted.

The team is working on a range of initiatives that have emerged from extensive consumer research. If Ells attracted customers by giving them something they didn’t know they wanted, Niccol is determined to do so by giving them what they ask for—or at least some of those things.

Customers say they want nachos and quesadillas on the menu, so Chipotle is experimenting with recipes. A loyalty program, another frequent request, is being tested at about 150 locations. By the end of 2019, most restaurants will have “digital pickup shelves” where people can pop in and grab the tacos they pre-ordered without waiting in line. Some restaurants are even trying out “digital drive-throughs,” windows that eliminate the need to leave the car (though you still have to order ahead). There are murmurs about offering breakfast, though Niccol says that’s not happening anytime soon.

And the company has tried out \$2 taco “happy hours” in the midafternoon.

The company is also working on sourcing its rice, beans and cilantro from organic suppliers. Improving food quality rather than saving money on ingredients is key to Niccol’s vision of turning the burrito chain into a badge of healthy living. In January, Chipotle debuted “Lifestyle Bowls” that are compatible with trendy diets like paleo, keto and Whole30. “Changing the narrative back to what people love about Chipotle” is central to reviving the brand, says Tarantino, the Baird analyst.

Among the initiatives that Niccol and Wall Street are most bullish on is the company’s recent “For Real” ad campaign, which highlights the 51 ingredients Chipotle uses in its food. In a break with the past, the company is doing things like running national TV ads during football games and launching “stickers” on Snapchat. “Chipotle didn’t have to do advertising for so long because they’d build a restaurant and people would come,” Brandt says. “But the level of competition has changed. The world has changed.”

Overall the stock is up more than 60% since Niccol took the reins. Though restaurants aren’t as busy as they once were, the company is expanding and is on track to open a new location every couple of days in 2019. It will take time to restore the love. “When you lose that much traffic that quickly in a restaurant, people don’t just come running back,” says John Glass, an equity analyst with Morgan Stanley. “They go find other places to eat. So then they’ve got new habits, and you’ve got to get them back in some way.”

When it comes to food safety, Chipotle will also have to deal with a level of scrutiny others don’t. It quickly became national news when customers reported getting sick after eating at Chipotle in Ohio this past summer. But the attention is O.K., Niccol says, because it’s also national news when Chipotle gives away free burritos. And that’s the affection he’s counting on.

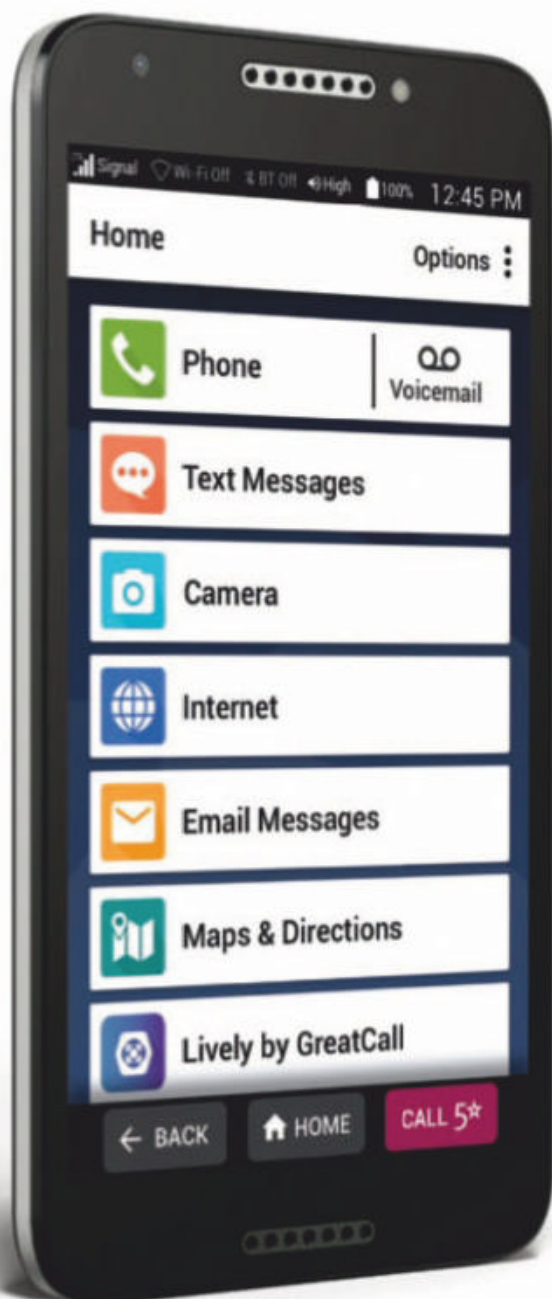
“When good things happen, we probably get more than our fair share. And when unfortunate things happen, we probably get more than our fair share,” he says as he sips Topo Chico mineral water, another item that may be added to menus. “The good news,” he says, “is people care.” ◻

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Time Off



End of an era

Seven shows created by women that revolutionized television come to an end this year. What's next?

INSIDE

RUSSIAN DOLL OPENS UP TO REVEAL LAYERS OF MEANING

A NEW POETRY COLLECTION CELEBRATES BLACK LIVES

THE ETHEREAL APPEAL OF MAGGIE ROGERS

PHOTO-ILLUSTRATION BY GLUEKIT FOR TIME

TELEVISION

A year of feminist finales

By Eliana Dockterman

IN 2012, FIXER OLIVIA POPE, PLAYED BY Kerry Washington, made her power-suit-clad debut, covering up D.C.'s bad behavior by day and sleeping with the President by night. Initially, many critics dismissed *Scandal*, Shonda Rhimes' follow-up to *Grey's Anatomy*, as a "guilty pleasure"—a loaded term that conjures images of women eating cartons of low-fat ice cream in front of the TV. But Rhimes proved that a show isn't a guilty pleasure just because it stars a woman, and Olivia's exploits won over a large audience: two seasons later, ABC made *Scandal* the cornerstone of a Thursday-night block of hit dramas produced by Rhimes.

Two weeks after Olivia first graced the small screen, a narcissistic writer named Hannah Horvath declared herself possibly the "voice of a generation," launching countless essays lamenting that millennial women would destroy the world. *Girls*, which starred its creator, Lena Dunham, had nothing in common with *Scandal*, except that both happened to be by and about women. Many reviewers also deemed *Girls* "unserious." And while criticisms about the show's whitewashed version of Brooklyn were warranted, objections to Dunham's naked body reeked of sexism.

These shows ignited a conversation about what women could and couldn't do onscreen, but they also marked a new era behind the camera: the rise of the female showrunner. Their saturation of popular culture convinced streaming services starting to generate their own original content that female television writers, once considered "risky," might be worthwhile hires. Seven game-changing female-run shows premiered from 2013 to 2015: *Orange Is the New Black*, *Broad City*, *Transparent*, *The Affair*, *Jane the Virgin*, *Unbreakable Kimmy Schmidt* and *Crazy Ex-Girlfriend*. Each boasted a specific voice.

Each changed the way audiences perceived women. And each will air its final episode in 2019.

SHOWS ABOUT WOMEN made by women had always been rare. Diane English's *Murphy Brown*, Roseanne Barr's *Roseanne* and Susan Harris' *Golden Girls* broke ground in the '80s and '90s. Amy Sherman-Palladino's *Gilmore Girls* and Tina Fey's *30 Rock* are now considered pop-culture canon. But those were largely the exceptions. Networks perceived women as a niche audience and argued that there simply wasn't room for women's stories in prime time.

But with the rise of Netflix, Amazon and Hulu, space became limitless, nullifying the sexist excuses of the past. Jenji Kohan never could have made *Orange Is the New Black* for a traditional network or cable outlet.

When she created *Weeds*, about a pot-dealing suburban mom, at Showtime, she spent most of the first season fighting with the network about the so-called twisted morality of her protagonist. *Orange Is the New Black* was not about just one difficult woman living in a man's world. The show was about dozens of women with different skin colors, sexual identities and body types—all locked up in one prison.

Kohan shopped *Orange* to HBO and Showtime, but Netflix was the only company to offer her a full-series order and total control. A year after the show debuted as part of the streaming service's first original slate in 2013, *Orange Is the New Black* was nominated for 12 Emmys and won three. Those awards attracted eyeballs. Netflix doesn't share traditional ratings, but Nielsen estimated that 5.3 million people watched *Orange*'s sixth season in 2018.

Streaming services began to seek out voices that might differentiate their libraries from those of the same networks that had ignored women for decades. *Transparent* became Amazon's first major hit in 2014, and creator Jill Soloway hollered, "Topple the patriarchy" from the Emmys stage when they won Best Director in 2016. (Since the show began, Soloway has come out as gender nonbinary, using the pronouns *they/them*.) When NBC dropped Tina Fey's *Unbreakable Kimmy Schmidt* before its debut, Netflix picked it up. A handful of female showrunners even established a group, nicknamed the Woolf Pack (after Virginia

'It was, as we were told, "too girly." So they passed.'

ABBI JACOBSON, recounting an early rejection of *Broad City* in her memoir

The next wave

A slew of female-run shows set the stage for dozens of television series created by women that are set to premiere in 2019. Here are just a few.



SHRILL

SNL's **Aidy Bryant** co-writes and stars in an adaptation of writer Lindy West's feminist, body-positive memoir.



TWENTIES

The Chi creator **Lena Waithe** draws from her experiences as a young, queer, black woman for the comedy *Twenties*.



TUCA & BERTIE

BoJack Horseman alumna Lisa Hanawalt gets her own animated series with the voices of **Ali Wong** and Tiffany Haddish.

PREVIOUS PAGE: BROAD CITY: COMEDY CENTRAL; THE AFFAIR: SHOWTIME; TRANSPARENT: AMAZON; CRAZY EX-GIRLFRIEND (2), JANE THE VIRGIN (2): CW; ORANGE IS THE NEW BLACK, UNBREAKABLE KIMMY SCHMIDT (2): NETFLIX; THESE PAGES: GETTY IMAGES (7)

Woolf), to plot how to bring the kinds of stories that were long considered taboo to the small screen.

RECENT CONVERSATIONS about sexism, rape culture and gender identity may have been stoked by politics, but they were primed by pop culture. The female-run shows ending this year fundamentally altered the way television portrayed women—and how audiences perceived them in real life. *Orange Is the New Black* introduced a trans character (played by trans actor Laverne Cox) a year before *Transparent* debuted an entire show centered on a trans woman (though controversially played by a cisgender man). Sarah Treem challenged the male gaze through which directors typically film sex and love with her show *The Affair*. She often filmed the same events from both a man's and a woman's perspective, illuminating their misconceptions about one another.

In comedy, Ilana Glazer and Abbi Jacobson put a female spin on dude-bro stoner fare with *Broad City*: in one memorable scene, a character wears pants stained with period blood so that when an airport security dog sniffs the marijuana she is smuggling, she can claim sexism. In *Unbreakable Kimmy Schmidt*, Fey and co-creator Robert Carlock mined the story of a horrific kidnapping for resilience and humor. Jennie Snyder Urman lent gravitas to romantic tropes often dismissed as whimsy in *Jane the Virgin*. *Crazy Ex-Girlfriend* creators Rachel Bloom and Aline Brosh McKenna penned a musical that featured songs like “Period Sex” and “Heavy Boobs.”

In this new era of feminist storytelling, audiences began to scrutinize male-run shows that cast women as either Madonnas or whores. *True Detective* came under fire for endless shots of strippers, and *Game of Thrones* faced backlash over frequent rape scenes.

Still, female writers continue to fight outdated norms. Rhimes leaned on the term *vajayjay* when the network restricted the number of times actors could say *vagina*, despite being more liberal with the use of the word *penis*. Bloom waged and lost a fight with the CW to air the entirety of “Period Sex,” which was considered too graphic, though depictions of rape are not. For all the gains female showrunners have made, a 2017 UCLA study found that parity remains elusive:

90% of showrunners are white, and 80% are male.

For decades, television has relied on a boys'-club system. Men were plucked from writers' rooms of successful series and given their own shows: David Milch went from *Hill Street Blues* to *Deadwood*, Matthew Weiner from *The Sopranos* to *Mad Men*, and so on. And those men were often given several chances: HBO canceled Milch's *Luck* after one season when several horses died on set, but he went on to co-write *True Detective*'s third season; Amazon wrote Weiner a \$70 million check to make the poorly reviewed *Romanoffs* after *Mad Men* (and stood behind the show after harassment allegations were levied against him).

Networks rarely give women such opportunities. That's why many of Hollywood's breakout talents are following in Rhimes' footsteps and leveraging goodwill on one project to build themselves into brand names: Lena Waithe parlayed an Emmy-winning episode she wrote for *Master of None* into deals for several new series. British writer Phoebe Waller-Bridge translated acclaim for her dark comedy, *Fleabag*, into a job as the head writer of last year's *Killing Eve* and a planned rom-com-thriller mashup called *Run*.

Meanwhile, the female writers with the most clout are lending it to the next generation of women. *Orange*'s Kohan executive-produced *GLOW*, a Netflix comedy about female wrestlers, written by Liz Flahive and Carly Mensch. Amy Poehler, who buoyed *Broad City*, co-wrote the new dramedy *Russian Doll* with Natasha Lyonne and Leslye Headland. Fey, meanwhile, acted as executive producer on Tracey Wigfield's *Great News*.

Ironically, the streaming services that facilitated the rise of these women may now be drowning out new talent. In 2013, *Orange Is the New Black* stood out among a handful of Netflix originals. But the amount of content has grown exponentially since then. Netflix made about 700 series last year, and both Apple and Disney plan to debut streaming platforms of their own.

Thankfully, we no longer treat women's stories as curiosities to be scrutinized. When a woman can make a good show, a mediocre show or a truly terrible show without signaling something about her gender as a whole, then we might be getting somewhere. □

‘He said I had more of a chance of getting into Congress than writing for TV.’

JENJI KOHAN, speaking about an ex to the *New Yorker*



UNBELIEVABLE

Erin Brockovich writer Susannah Grant co-adapts the true story of a teen charged with lying about rape. **Toni Collette** stars.



FOUR WEDDINGS AND A FUNERAL

Writer and rom-com fanatic **Mindy Kaling** turns a classic of the genre into a limited series.



MRS. AMERICA

Cate Blanchett will play real-life antifeminist activist Phyllis Schlafly in a '70s-set series from *Mad Men*'s Dahvi Waller.



FIRST WIVES CLUB

Girls Trip writer Tracy Oliver reboots the iconic 1996 film as a show starring **Ryan Michelle Bathe** and Michelle Buteau.

DOCUMENTARY

Two ace journalists, larger than life

By Stephanie Zacharek

THESE DAYS, PEOPLE AREN'T exactly clamoring to recognize two white guys as heroes. But we only stand to lose if we neglect the legacy of old-school journos like Jimmy Breslin and Pete Hamill, subjects of the lively and suitably sly HBO documentary *Breslin and Hamill: Deadline Artists*.

Breslin and Hamill were stars of the New York City newspaper scene from the 1960s through the '80s, though their influence stretched far beyond Manhattan. Both tackled issues of race and class with bravado, speaking up for the powerless and deflating the powerful. Breslin, covering John F. Kennedy's assassination for the New York *Herald Tribune*, found the worker who dug the President's grave at Arlington Cemetery, Clifton Pollard, weaving his story into a beautifully detailed piece of reportage. In the mid-1960s, Hamill filed dispatches from

Vietnam and, not long afterward, had the terrible honor of reporting on the death of a politician who had become a friend, Robert F. Kennedy.

Deadline Artists—directed by Jonathan Alter, John Block and Steve McCarthy—includes archival footage and contemporary interviews with the likes of Gay Talese, Gloria Steinem and Spike Lee. Best of all, though, are the recently conducted interviews with Breslin (who died in 2017 at age 88) and Hamill. Both were working-class kids who came out of tough New York neighborhoods, learning their craft from the bottom up. At one point the elderly Breslin, less combative than in his younger days but still flinty, reflects on the writing education he got from the nuns at Catholic school: They stressed “subject, verb and object,” he says. “Concrete nouns, active verbs,” Hamill adds. Breslin sums it up: “It was pretty good teaching.” Those nuns knew vivid, muscular prose when they saw it. □

‘Probably the first killer that I can ever recall who understands the use of the semicolon.’

JIMMY BRESLIN,
on David Berkowitz,
a.k.a. Son of Sam



Hamill and Breslin: colleagues, friends and stars of the New York City newspaper world

MOVIES

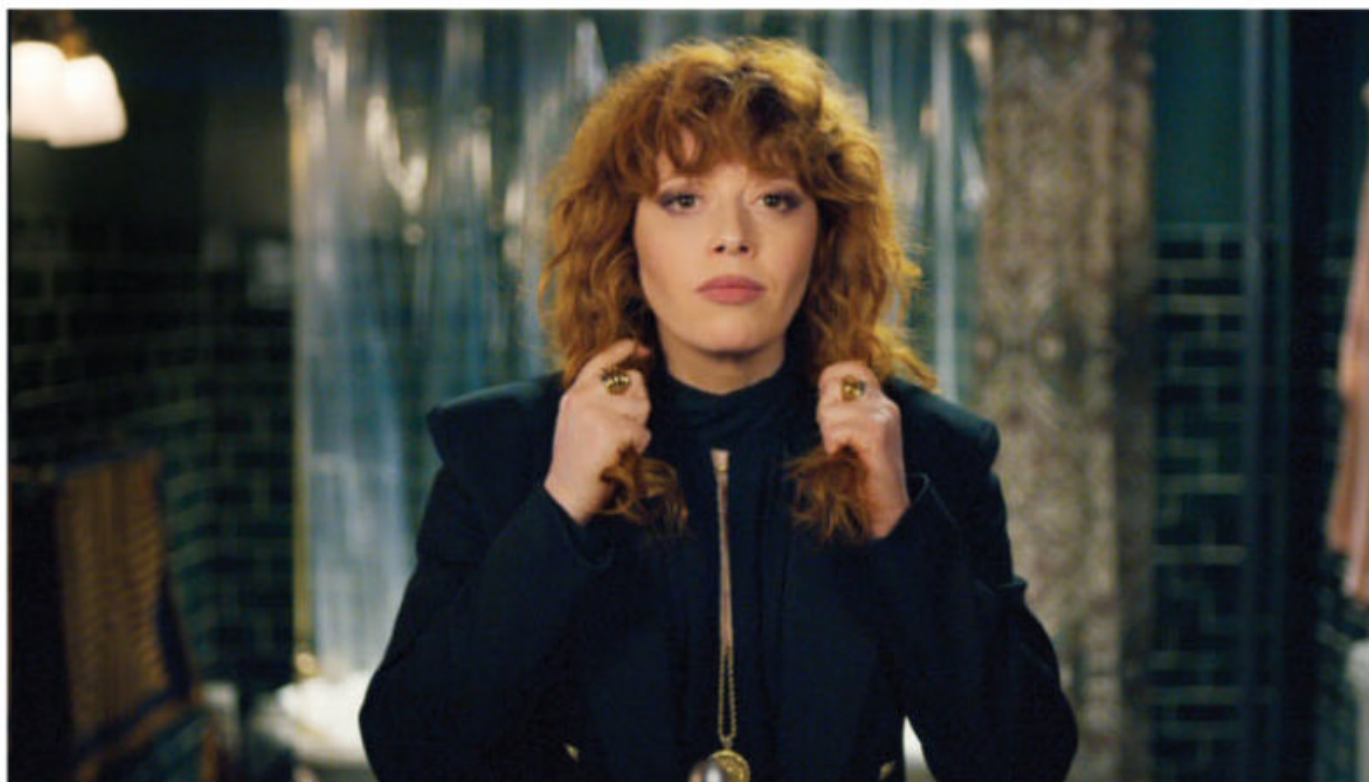
A man, a woman and a very big fish

MEDIOCRE MOVIES ARE a dime a dozen. But a picture like *Serenity*, absurd and lousy in too many ways to count, is a rarity to be savored. Matthew McConaughey plays manly man Baker Dill, the troubled captain of a small fishing boat who makes money by taking tourists out to sea for the day. You can tell he's perpetually bummed out by the grayish whiskers that dot his chin; life's misfortunes have sapped his will to shave.

Baker Dill—with a name like that, you can't call him just Baker—spends most of his time on land wandering through his tiny seaside town obsessing about catching some mythical giant fish that lives, perhaps, only in his head. Then a stylized femme fatale (Anne Hathaway), a woman from his past, shows up with a request: Might Baker Dill be willing to kill her boozy, abusive husband (Jason Clarke) in exchange for a heap of dough? Baker Dill says no, nobly; then he considers the offer seriously. At any rate, it might be better than chasing after some elusive chicken of the sea.

Is all of this real? Is any of it? Writer-director Steven Knight—who previously gave us the solid 2013 drama *Locke*—has tried to fashion a mind-bendy fantasy that's also emotionally involving. But the big twist at the end is really just more of a limp wriggle. It takes a lot more than this to keep us on the hook. —s.z.

BRESLIN AND HAMILL: HBO; RUSSIAN DOLL: NETFLIX; I AM THE NIGHT: TNT



TELEVISION

An uncanny valley of the Dolls

By Judy Berman

THE RUSSIAN NESTING DOLL KNOWN IN its homeland as the *matryoshka* lends itself to elaborate metaphors. Each wooden woman appears whole until you twist her open to reveal the hollowness inside; only the baby girl at the toy's core turns out to be solid. Maybe those layers represent generations of mothers birthing daughters in their own image. Maybe they're the armor a woman dons as she stumbles through life feeling no more mature than she was as a kid.

Both interpretations prove relevant to *Russian Doll*, 2019's best new show to date, a cerebral, propulsive eight-episode dramedy that hits Netflix on Feb. 1. Created by Natasha Lyonne, Amy Poehler and Leslye Headland (*Bachelorette*), it casts Lyonne as Nadia, the kind of prickly, self-destructive New Yorker she often plays (*Orange Is the New Black*). She's turning 36, and the premiere opens with Nadia staring blankly into the bathroom mirror at a party her friends are throwing for her.

But something about this birthday is haunting her. Instead of enjoying a night among loved ones, Nadia leaves with a smarmy stranger (Jeremy Bobb). Hours later—but only a few minutes into the first episode—she suddenly gets mowed down by a cab ... and finds herself back in her

▲
Is Nadia
(Lyonne) dead,
on drugs or
simply losing her
mind?

friends' bathroom, at the beginning of the evening, terrified but physically unscathed. More resurrections establish the central mystery: What the hell is happening to Nadia?

If the show were itself a *matryoshka*, an atmosphere of downtown cool would make up its outermost layer. Though it's set mostly in the present, the nighttime East Village of *Russian Doll*—with its 24-hour diners, homeless artists and dark bars with secret back rooms—conjures the neighborhood's 20th-century grit. The second layer is the show's *Groundhog Day* plot architecture, a puzzle box stuffed with clues for viewers to untangle. Yet while most series that encourage this type of engagement skimp on character development, Nadia's arc is remarkably specific. And it gives the *matryoshka* a solid center of spiritual but never pedantic ideas; each spin around the karmic wheel deepens Nadia's understanding of life and how to live it. What is a Russian doll, after all, if not an invitation to delve below the surface? □

TELEVISION

Dark Night of the soulless

Fauna Hodel grew up poor in Nevada, a light-skinned biracial girl with a black single mom. But as a teen in the mid-'60s, she learned that her real birth mother came from a rich, white family—with secrets. Inspired by Hodel's life, *I Am the Night*, which premieres on Jan. 28 on TNT, follows Fauna (India Eisley) to California. There, her search for answers collides with that of hard-boiled crime reporter Jay Singletary (Chris Pine), whose history with the Hodels dates back nearly 20 years to the Black Dahlia murder.

With its true-crime hook, its predatory men and its interest in identity, this is a period miniseries made for 2019. The Los Angeles of director Patty Jenkins' (*Wonder Woman*) noir thrums with neon life. Sadly, the script doesn't match the production values: the dialogue is thuddingly literal, as though the characters' coffee is spiked with truth serum. And though it touches on issues like race, gender, art and personal morality, *I Am the Night* ultimately offers too many genre tropes and not enough fresh insight. —J.B.



Pine reunites with *Wonder Woman* director Jenkins



< Parker will also publish her debut YA novel, *Who Put This Song On?*, in 2019

POETRY

The magic of *Magical Negro*

By Glory Edim

POET MORGAN PARKER'S LATEST collection, *Magical Negro*, is a riveting testimony to everyday blackness. The writer behind 2017's acclaimed collection *There Are More Beautiful Things Than Beyoncé*, which examined black womanhood and identity, now turns her attention to challenging black stereotypes. Her new collection of poetry explores how identities are constructed, not only through the prism of race but also through historical legacies and pop culture. By replacing the self-effacing goodness of the "magical negro" trope, Parker highlights the authentic, specific characteristics of real people.

There is no distinct separation between the writer and her elegy. Parker is uncompromising with her interior life, and between stanzas puts it fully on display. She invites us into her bedroom and therapy sessions. We are left to experience the magnitude of the violated black body: *Every day it is bitten with new guilt*. It is a moving window into her day-to-day existence, a tenacious black woman rejecting oppressive standards of beauty in favor of profound self-acceptance.

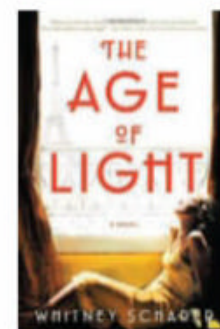
Parker is deliberately provocative on race. She playfully mocks America's hypocrisy without fear of retribution. Throughout the collection, readers are

greeted with the devastating contradictions that riddle American history, so often to the detriment of black lives:

The history of black people, an investigation.
The history of black people, a tragicomic horror film.
The history of black people, or, joy stinging pink lips.
The history of black people says me.
The history of black people goes blank.
The history of black people, adapted from white people.

While *Magical Negro* is a condemnation of black objectification, it is also an acclamation of black triumph. Parker's boldness and vulnerability are rewarded within the verse, which offers an inquiry of black genius: the gentle weaving of cultural icons from Diana Ross to Eartha Kitt, the tributes to visual artists Adrian Piper and Glenn Ligon, the political homage to Harriet Tubman and Frederick Douglass. And beyond the critical acclaim of her heroes, she acknowledges that black lives are often denied recognition of agency and personal autonomy. She leads us toward a chorus of black voices chanting, *We are still here*.

Magical Negro's soft radiance permeates the soul, inspiring a disquieting melancholy. It is wry and atmospheric, an epic work of aural pleasures and personifications that demands to be read—both as an account of a private life and as searing political protest. □



FICTION

History through her lens

Amid the lavish and kinetic Paris art scene of the 1930s, Lee Miller is struggling to find herself. The young American model and budding photographer is also developing a relationship with the famous Surrealist artist Man Ray. In her debut novel, *The Age of Light*, Whitney Scharer examines their tumultuous real-life romance through the perspective of the woman who would go on to become a pioneering female war correspondent in World War II.

Scharer, who won a reported seven-figure deal for the novel, skillfully renders an electric version of the city, pulling the reader into the opulence and mystery of the era. Miller starts out as Ray's photography assistant but yearns for recognition as an artist herself. It's a familiar tale: she finds herself repeatedly diminished as merely a muse in their male-dominated world.

Miller's place in the history of photography is undeniable, yet the balance of the novel's storytelling at times gives the men in her life too much space. Perhaps Scharer does so intentionally. Nearly a century later, her story is eerily resonant as women are still deprived of the recognition they deserve, especially behind the camera. Female photographers claim only a fraction of auction sales dollars and front-page credits in newspapers—an imbalance that plagues the arts across the board. Miller's story reminds us of so many women still struggling to be seen. —Kara Milstein

PARKER: RACHEL ELIZA GRIFFITHS; SLIMANI: MAGALI DELPORTE—EYEVINE/REDUX

PROFILE

Leila Slimani is not afraid to go there

By Belinda Luscombe

LEILA SLIMANI SAYS SHE'S NOT PARTICULARLY interested in shocking people. This is a somewhat surprising claim, since the book that made the French Moroccan novelist a best-selling star last year, *The Perfect Nanny*, began with two simple, devastating sentences: "The baby is dead. It took only a few seconds."

That novel, which echoed an infamous New York City "killer nanny" story, caused a sensation for its dissection of the relationship between mothers and those who care for their children, of the soul-crushing tedium of looking after small humans, of the fury that radiates between the have-it-alls and the have-not-enoughs. It earned the now 37-year-old, herself a mother of two, France's top literary prize, the Prix Goncourt, in 2016. She is so well-regarded that President Emmanuel Macron has brought her onto his administration as an official cultural emissary.

Slimani's next novel released in the U.S., *Adèle*, likewise provokes: it takes a dispassionate look at the scandalous sexual behavior perpetrated by a woman living a seemingly "normal" life. "If we really know people, if we know what's behind the mask," Slimani tells TIME, "everyone is shocking."

IN *ADÈLE*, published in France before *The Perfect Nanny*, Slimani's protagonist is a deeply unhappy woman. Adèle medicates her misery with alcohol and intercourse, the more dangerous and degrading the better. The source of her discontent is unclear: she has a respectable and reasonably caring husband, a young son, a Paris apartment and an interesting job. She's squarely in the "has it all" sector.

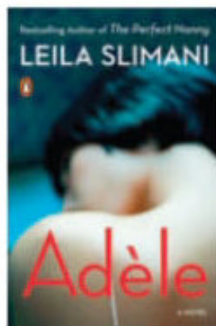
But "it all" is as chaff in her mouth. It is subsistence but not nourishment; she craves flavor, spice, hot sauce. Adèle yearns, Slimani writes, to rediscover the "magical feeling of actually touching the vile and the obscene, the heart of bourgeois perversion and human wretchedness" that she got when, as a child, her mother's lover took them both around the seedier parts of Paris. Her increasingly risky assignments indirectly lead to her husband being hospitalized, and it gets worse from there.

"It's the saddest thing in the world, sex," says Slimani. "When you see yourself having sex, and you see your partner, and you see something animal." She is not talking about the abandoned passion people experience early in a relationship, but the more garden variety of sex she says people

usually have. "It's melancholy and disappointing because you want to have fusion with someone, to fight your loneliness. But you're even lonelier."

It's not hard to draw a line between Slimani's novels. Both explore that creature that lies curled in the human soul, waiting to be woken by trauma or rage, to perform acts of great violence or lust. The author's focus is on underestimated women; those who are domesticated, provided for, dutiful. Recently, Slimani found a card her colleagues gave her in 2013, when she left her job as a journalist covering Tunisia and Egypt (Adèle has the same profession) to try to write fiction. "Even though I said to everyone that I was going to quit because I wanted to write," says Slimani, "everyone wrote about the fact that I had a little baby at home and I was going to take care of him."

At the time, she didn't even notice. But two novels in, she's mildly "scandalized," she says, by how her colleagues underestimated her. Perhaps their mistake was to fetishize domestic life in a way Slimani does not. In her novels, home and hearth are a furnace, not a haven. Families are groups in which power struggles are conducted in close quarters, and with gloves off. "The house is a political place, a place of violence and domination," she says. "It's a place where there is a fight—or maybe a war." □



^
Slimani was raised with two sisters by an economist father and surgeon mother in a French-speaking household in Morocco



If you purchased Asahi-brand beer between April 5, 2013 and December 20, 2018, you could be eligible for a payment from a class action settlement.

A class action settlement has been reached with Asahi Beer U.S.A., Inc. (“Asahi”) about whether it advertises that certain Asahi brand beer are brewed in Japan when they are actually brewed in Canada. Asahi denies all of the claims made in the lawsuit. The Court has not decided which side is right. Instead, the parties agreed to a settlement.

Who is included? You’re a “Class Member” and included in the settlement if you purchased Asahi Beer in the United States, its territories, or at any United States military facility or exchange, for personal, family, or household purposes and not for re-sale between April 5, 2013 and December 20, 2018.

“Asahi Beer” means all bottles and/or cans of Asahi brand Beer brewed outside Japan and sold in the United States, including Asahi Super Dry (any variety) and Asahi Select beers.

What does the settlement provide? Class Members who submit a valid Claim Form will receive up to \$10 per household. Actual payment amounts will be based on the type and quantity of the Asahi Beer purchased (\$0.10 per Big Bottle, \$0.50 per 6-pack, \$1.00 per 12-pack of cans, and \$2.00 per 24-pack of cans) between April 5, 2013 and December 20, 2018. In addition, Asahi will bold the term “Product of Canada” on the neck label of newly-produced Asahi Super Dry Beer brewed and bottled in Canada.

How do I get a payment? You must submit a valid Claim Form by May 3, 2019. Claim Forms may be submitted online at www.asahibeersettlement.com, or printed from the website and mailed to the Settlement Administrator at the address on the Claim Form. Claim Forms are also available by sending an email to info@AsahiBeerSettlement.com calling 1-866-447-6219, or by writing to the *Shalika v. Asahi Beer* Settlement Administrator at P.O. Box 404000, Louisville, KY 40233-4000. Completed Claim Forms must be postmarked or submitted to the Settlement Administrator no later than **May 3, 2019**.

Your other options. If you do nothing, your rights will be affected and you will not be able to receive a settlement payment. If you don’t want a payment and do not want to be legally bound by the settlement, you must exclude yourself by June 25, 2019. Any judgment, whether favorable or not, will bind all Class Members who do not request exclusion. If you stay in the settlement (i.e., do not exclude yourself), you may object to it in writing prior to the Final Approval Hearing or in person at the Final Approval Hearing.

How Will Class Representatives and their Lawyers get paid? Class Counsel will ask the Court for service awards not to exceed \$2,750 for each Class Representative and an award of attorneys’ fees and expenses not to exceed \$765,000. Asahi may oppose the request for attorneys’ fees and expenses. The Court will determine the appropriate amount of the attorneys’ fees and reimbursement. Any amounts awarded by the Court will be paid separately by Asahi and will not reduce the amount of payments available to you.

How much will the Settlement Administrator get paid? Settlement Administrator fees and costs will not exceed \$300,000 and will not reduce the amount of payments available to you.

The Court’s hearing. The Court will hold a Final Approval Hearing in this case *Shalika v. Asahi Beer U.S.A., Inc.*, No. BC702360 at 10:00 a.m. on July 16, 2019 at the Spring Street Courthouse, 312 N. Spring St., Los Angeles, CA 90012. At the hearing, the Court will decide whether to approve the settlement, Class Counsel’s request for attorneys’ fees and expenses, and service awards to each of the two Class Representatives. You may appear at the hearing, but don’t have to.

For more information, including the detailed notice, Claim Form, and the Settlement Agreement and Release, call or go to the website below.

1-866-447-6219

www.AsahiBeerSettlement.com

TimeOff Reviews

MEMOIR

Grieving between the lines

By Bethanne Patrick

THE LOSS OF A PARENT CHALLENGES most children, no matter their age. But when the parent is both beloved and deeply flawed, as Katharine Smyth’s father was, that grief can be difficult to parse.

In *All the Lives We Ever Lived: Seeking Solace in Virginia Woolf*, Smyth turns to an unlikely source of solace after her father’s death: her favorite book, Woolf’s 1927 masterpiece *To the Lighthouse*. Blending analysis of a deeply literary novel with a personal story is a high-wire act for many reasons, not least being how few readers will have read Woolf themselves. But Smyth, who earned an M.F.A. in nonfiction from Columbia, is up to the challenge, gently entwining observations from Woolf’s classic with her own layered experience.

Smyth tells us of her love for her father, his profound alcoholism and the unpredictable course of the cancer that ultimately claimed his life. She admits that she doesn’t understand him. As she navigates her sense of loss,

she discovers that the structure of *To the Lighthouse*—in which a family’s seemingly perfect past and unsure future are bridged by a stormy present—is more than a literary device. It’s a statement that speaks directly to her needs, “an endeavor to speak to and rectify grief’s essential formlessness.”

Smyth finds a way to translate how fiction helps us understand that formlessness, and the way in which even the death of a close relative, especially in a sanitized hospital setting, can feel remote and inaccessible. As she searches for truths about her father, Smyth accepts that nothing—not his corporeal self, not his character, not his history—can be fully known. In *To the Lighthouse*, Mr. Ramsay quotes a poem: “And all the lives we ever lived and all the lives to be/ Are full of trees and changing leaves.” In writing her own book, Smyth has discovered a way to appreciate the changing leaves, one that works both as memoir and as an aid to those who mourn. □



Smyth’s book offers a unique blend of memoir and literary criticism

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TimeOff Reviews

Rogers finds an eclectic blend of pop, folk and dance music



MUSIC

The many lives of Maggie Rogers

By Raisa Bruner

MAGGIE ROGERS GOT HER START THE USUAL WAY FOR A 21ST CENTURY star: the Internet. In 2016, a video captured producer Pharrell Williams tearing up in response to an original composition she played during a master class at New York University. The clip went viral, catapulting Rogers to fame and a record deal. Now, after racking up millions of streams, releasing a shimmering, moody EP in 2017 and performing on *Saturday Night Live* last fall, she's released her first major-label album, *Heard It in a Past Life*. An understated, idiosyncratic mix of pop, folk and dance music, the album confirms Rogers as a tender but powerful musical force, putting her in the company of a group of solo female artists claiming space outside of the typical machines of pop, country or R&B.

In an era dominated by sounds on opposite ends of a spectrum—the high-ponytail pop of Ariana Grande and the tentative vulnerability of Julia Michaels—Rogers' act is refreshingly direct. Raised in rural Maryland, she grew up playing harp and banjo and experimenting with samples collected in nature. She comes across as an earnest free spirit, a millennial in the vein of Joni Mitchell. *Past Life*, written in part in a barn at her childhood home, is rooted in familiar warmth but full of unexpected twists. On "The Knife," she tinkers with metallic crackles and round bass beats. The tender percussion and sing-along lyrics of "Alaska," the breakout hit adored by Williams, give it the feel of a drum-circle lullaby.

Rogers is pushing forward as part of a loose-knit collection of female singer-songwriters testing audiences' preconceptions about stardom. Along with contemporaries like the R&B-inflected King Princess, alt-rockers Mitski and pop prodigy Billie Eilish, she has found a fan base agnostic to genre. Their sounds are eclectic, their voices equally at home over acoustic chords and heavily processed beats, and their careers shaped by twists of digital fate. But their music is much more than a viral trend. When Rogers sings "People change overnight," she might as well be summing up her path so far. Becoming a sudden sensation is jarring, but she's adjusting: "Things get strange, but I'm all right." □

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STUFFY HEAD,
SORE THROAT,
FEVER,
**VAPORIZE
YOUR COLD,
MEDICINE.**

7 Questions

David Treuer The Ojibwe writer on Elizabeth Warren, the problem with tragedy, and his new book, *The Heartbeat of Wounded Knee*

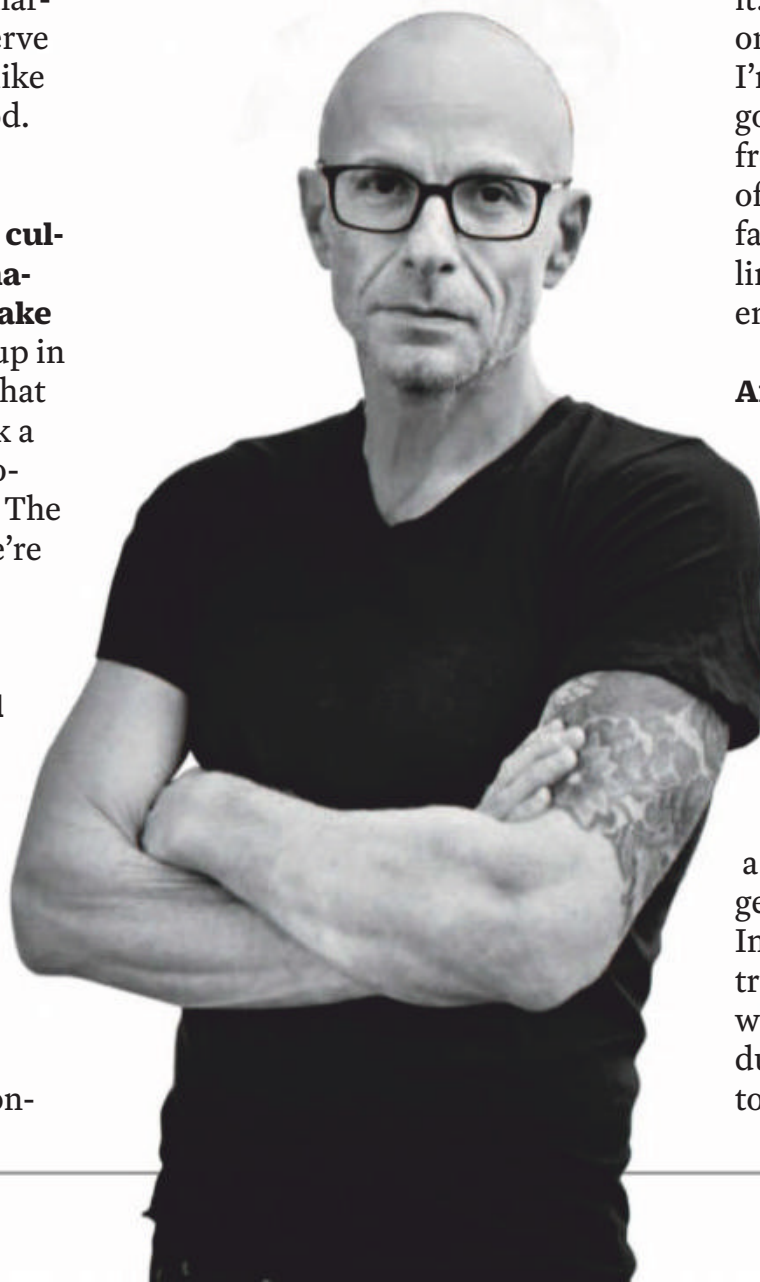
You describe your book as a “counternarrative” to the 1970 history *Bury My Heart at Wounded Knee*. What was your reaction the first time you read it? It was in every Indian household, but I didn’t read it until college. I remember feeling both applauded and eradicated. It tries to draw attention to a legacy of injustice, but on the other hand it says the massacre at Wounded Knee in 1890 was the point at which Indian culture and civilization died, period. I remember reading that as a student at Princeton, far from home, missing my tribe and thinking how preposterous it was.

Was there a misconception you most wanted to set right? I was most interested to wean ourselves from the tragic mode. Tragedy in the Aristotelian sense is a story that elicits strong emotions and which leads to a moment of catharsis. That kind of narrative doesn’t serve us. People get to read and then feel like they’ve done some sort of social good.

You make the case for defining Indian identity by relationship to culture, so what did you think of Senator Elizabeth Warren’s choice to take a DNA test? The fact that she grew up in Oklahoma hearing she was Native, that just makes her Oklahoman. She took a test, and it proved that she heard stories that were largely true. So what? The only reason it’s a story is because we’re continuing to bite the baited hook.

Your father was Jewish, a Holocaust survivor who came to tribal life from the outside. What perspective did he offer you on issues of identity? He considered himself Jewish only insofar as he was persecuted. When he finally did come to the reservation, he described it as feeling like coming home after a lifetime of exile. It felt very comfortable. That’s the tricky thing. Identities are always constructed, multiple and overlapping.

“THE FACT REMAINS THAT OUR NATIONS WERE HERE BEFORE ANY EUROPEANS CAME”



You describe how we got to a place where Indians are fully American but also treated differently by the law. How does one balance that right to be different with a hope for being equal? We don’t simply want equal rights—although we do want those, because we’re American citizens. It’s that *and* a recognition that we belong to sovereign nations which exist inside of the sovereign nation of the United States. The fact remains that our nations were here before any Europeans came. We gave people permission to settle here in exchange for recognition of our tribal sovereignty. If that troubles people, they can move.

What do you hope activists learn from the work of the American Indian Movement in the ’60s and ’70s, or from the more recent protests at Standing Rock? They’re already doing it. I see the protests that continue to go on in Minnesota around pipelines, and I’m incredibly impressed. They’re such good students of history. They’re at the front line not just of Native protests but of a larger protest that highlights the fact that the struggle isn’t between pipelines and Indians, it’s between private enterprise and the common good.

After the recent Indigenous Peoples March in Washington, D.C., video of young men in MAGA hats surrounding an Omaha elder became a focus of controversy. Is there a lesson people can take away from the way that moment went viral? The surface is ugly, but the depths are profound. We could focus on [the elder] Nathan Phillips. Despite what he’s been through—and I’m imagining it’s been a lot—with dignity and compassion and gentleness even, he stayed in the fight. In his example, I see a lot of what I was trying to communicate in the book: the ways in which Indians have not only endured America but endeavored always to make it better.

—LILY ROTHMAN



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